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VERSION VS. FORCEPS*

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During the past two or three years, there has been a noticeable change in attitude in regard to internal podalic version.

This operation was formerly restricted to a few indications and considered more in the nature of an emergency operation or means of last resort. The work of Dr. I. W. Potter[1] of Buffalo, and the studies of Dr. William Sharp, of New York[2], in the intracranial lesions of the new-born, have stimulated interest in the subject, broadened its indications and popularized its use particularly among obstetricians. The former has given us a simplified technique, far better in my experience than any described in our current text-books, while the latter has opened up a very fertile field for thought and study. As forceps, and version and extractions are the operations most frequently resorted to, we have for the past several years, in our service in the Charity Hospital, been carefully studying the immediate and end results.

Occasions arise wherein we must decide which of these two procedures will most adequately meet our needs and the decision is usually based on accepted indications and is influenced by the judgment of the operator and his experience with the two methods.

As this is a big subject, I wish to limit myself to a brief review, based on our experiences, of the merits and demerits of these two operations—especially as regards injuries to the mother and fetus and fetal mortality. Successful delivery by these two methods depends in a large measure on the proper interpretation of the indications and regard for the mechanics of the second stage.

As to the use of forceps, in spite of the universal condemnation of the high forcep operation, based on the experiences of our best accouchers, we find that it is still being practiced, with the usual disastrous results to mother or fetus, or both.

The mid-forceps has met all requirements satisfactorily. Its use should be encouraged, and early when indicated, except in the cases listed below.

The low forceps, with or without episiotomy has been most valuable. Securing a proper application of forceps is rudimentary, but failure to determine the exact position and amount of rotation coupled with an apparent disregard for the mechanics of the second stage, especially extension, leads us into difficulties. The forceps frequently slip off, often after repeated applications, with resultant tears of the perinium, vaginal wall and cervix, with cystocele and rectocele as later complications.

The fetal head is severely traumatized, resulting in injuries varying from contusions of the brain, edema, and intra-cranial hemorrhage, to gutter fractures of the skull.

These are but a few of the accidents, but represent the most serious as regards the life of the fetus and its future welfare.

Death results from prolonged compression of the head by the forceps, or by forcing the head against the bony prominences with resultant compression sufficient to cause the injuries just mentioned. With proper asepsis, the danger of infection is very small, and the maternal mortality should be practically nil—but on the other hand, the fetal mortality is high.

Jellett[3] states that a fairly correct idea of the risks of forceps operations when properly performed in hospital practice, may be afforded by the following table:

*Read before the Louisiana State Medical Society, Opelousas, La., April 21-24, 1924.

Del	Forceps	Maternal	Fetal	% Fetal Deaths per 100 cases
11,098	431	0	60	13.92%

This percentage is high and is fairly representative of the figures submitted by recognized clinics.

Internal podalic version and extraction have supplanted the use of forceps in many cases,—particularly those of difficult application or in instances where the forcep extraction does not progress satisfactorily. I refer especially to cases of occipito-posterior positions, neglected face presentation, premature ossification of the canial bones with or without closure of the posterior fontanel and excessive overlapping of the cranial bones. The application of forceps in these types of cases will invariably result either in a cerebral hemorrhage or edema, the degree varying and depending on the ease or difficulty of delivery.

Potter states that in a series of 938 cases, he had no maternal mortality. The percentage of fetal deaths in these deliveries, exclusive of other causes, such as macerated or dead feti or babies whose cord did not show any pulsation when delivery was started, was 2.3%. I regret my inability to present a statistical report on the causes of death following delivery by version. Autopsies are always requested, and usually refused, but in the ones obtained we noted a high percentage of deaths due to syphilis of the lung and congenital atelectasis.

The dangers of the operation to the mother, are lacerations of the cervix, (frequent), rupture of the uterus, (remote), infections, and lacerations of the perineum, more often than not, very extensive. The latter can be offset by carefully dilating the soft parts, prophylactic low forceps, episiotomy and complete anesthesia. The dangers to the fetus are asphyxia from aspiration of fluid or mucus, or compression of a prolapsed cord, fractures of the vertebral column, clavicle or arms, and we might add, intra-cranial hemorrhage or edema from the faulty handling of the terminal stage of delivery.

Occasionally it is impossible to determine the position due to a caput succedaneum, cephalematoma, or apparent impaction. This interferes with a proper application of forceps and if applied they frequently slip off. Attempts at delivery in these types of cases are discouraging, and here we have employed version, not after repeated attempts at delivery, but immediately after the first failure to secure a satisfactory application. I have not enumerated all the indications for forceps and version but have stated the most frequent cases in which, in our experience it has proven its worth.

Attention to detail and meeting step by step the developments of the delivery, has made it in our hands a comparatively simple operation, free from the hurry and haphazard steps often stated as necessary to a successful delivery. In preparing for this operation, the patient in addition to being surgically prepared externally is given an enema and is catheterized under anesthesia so as to better empty the bladder. We have used ether, chloroform and nitrous oxide. The former is the safest, chloroform has been employed particularly in cases requiring a quicker relaxation. Nitrous oxide has also been used, especially in eclamptics, but its use should be limited to the skilled anesthetis or the relaxation will be insufficient and unsatisfactory.

The technique we employ is the one described by Potter, in the March, 1921, issue of the *Journal of Obstetrics*.[1] We vary it in some respects, viz:—no attention is paid to ironing out the vaginal rugae, manual dilatation of the perineum to a point allowing of the free passage of the closed fist is deemed sufficient. If the membranes are not ruptured, they are artificially opened. We do not attempt to preserve the bag of waters or separate the membranes from the uterine wall. The former is of little assistance, in fact may be embarrassing at times, with the latter there is always danger of adding to the risk of infection.

The patient is anesthetized to the surgical degree before even attempting to dilate the perinium and this dilatation is usually accomplished with the left hand, the right being reserved for the intra-uterine examination and version. Later the left hand is used to steady the fundus, the right hand is introduced far into the uterus, both feet are grasped and extracted. What actually follows is that the fetus goes through the movements of a backward somersault.

As we are working inside of the membranes, the danger of infection is at a minimum. We usually follow the delivery by a manual extraction of the placenta, as the patient is asleep and the uterus tends to relax. Three minims of pituitrin are immediately given, followed by a massage, and ergot as soon as the patient has reacted. The forceps are always ready to be applied to the aftercoming head. This has been particularly useful in cases when there

is need for haste as indicated by diminishing cord pulsations, a large head and in primipara with rigid perineum. The operation has been performed satisfactorily in hospital and practice in the homes. All that is required is a complete knowledge of technique.

As compared to high forceps, and the mentioned cases in which in my opinion mid-forceps should not be used, it is an easier and safer method of delivery and can be readily mastered with a little practice.

Conclusion

I want to state that I am not advancing the discarding of forceps in favor of version. Version should be substituted for high forceps and used in many mid-forceps indications. It should be done early, not simply as an emergency or operation of last resort. The routine termination of labor at the end of the first stage with version, is a practice that should be discouraged.

Finally, while the danger to the mother may be slightly greater with version, when properly performed it will be more satisfactory from the maternal and fetal viewpoint, not only in respect to the immediate results, but as regards the eventful welfare of both.

References:

(1) *The Place of Version in Obstetrics—I. W. Potter, M. D.*, 1922.

(2) *Intra-Cranial Hemorrhages in the New-Born—William Sharpe, M. D., J. A. M. A., Vol.* 81, *No.* 8.

(3) *Manual of Mid-Wifery—Jellett and Modill, Univ. Series.*

(4) *Journal of Obstetrics—I. W. Potter, M. D., March*, 1921.

DISCUSSION

Dr. Thomas B. Sellers: I agree with Dr. LeDoux in condemning high forceps. In spite of the fact that high forceps are almost a relic in maternity hospitals some surgeons still use them.

As an anaesthetic, I prefer nitrous oxide and oxygen to ether when the services of a trained anaesthetist can be had. One of the advantages of nitrous oxide and oxygen is that the patient will awaken quickly.

Great care must be exercised in performing a version. Less attention should be paid to the time it takes to deliver the child, and more attention paid to the prevention of shock to the mother, and bodily injury to the child through haste. In delivery of primipara—a routine episiotomy is an excellent practice. It prevents injury to the child and makes delivery of the head much easier.

Dr. C. C. De Gravelles (Morgan City): I want to thank the Doctor for his really wonderful paper, and I am sorry there are not more here to hear it.

I heard a very prominent gynecologist from New Orleans say in discussing this general subject, "Who is using the high forceps these days?" But we all know that they are being used too often. A lot of doctors buy a pair of forceps and do not like to look at them; they think they have to use them, and they use them too often. The statistics last year of Columbia Hospital in Washington, D. C., showed that 20 per cent. of deaths of infants in the first month of life are due to birth injuries; the statistics of the Maternity Hospital of New York showed 15 to 20 per cent. This strikes me as a terrible condition, and I believe the time is coming when the manufacturers of instruments will make forceps that we cannot get past the vagina.

Dr. Paul Michinard (New Orleans): It has been said that fetal injury and fetal death, maternal injury and maternal death, have been caused by both high forceps and podalic version. Injury and death have been caused by the scalpel. All of these methods with the intention of relieving mankind have to be put aside sometimes because there is a lack of skill and judgment in their application. I consider forceps a perfectly safe instrument. Some have contended it is a fetal murderer. It is in the hands of the man who does not know why and how he uses the instrument. Podalic version may also be condemned. I have been called in consultation in several cases of serious puerperal infection caused by podalic version. Three I remember distinctly—when I made examination I found the infection was due to laceration of the lower segment of the uterus, a laceration, fortunately for the patient, in the broad ligament. It was not podalic version as a method that was causing this distressing result, but simply the wrong application of a very good method.

What are the indications for these procedures? I cannot tell you unless you know your anatomy. I have no use for this haphazard way of taking obstetric cases. I refuse to take an obstetric case unless I have ample opportunity of making pelvic measurements. I do not make external pelvic measurements, but internal. We must take not only the antero-posterior diameter of the inlet, but also the diameter between the spines of the ischia, which should be 11 cm. That can be easily determined by taking the diameter between the tuberosities of the ischial bones. It is the same diameter of the spine of the ischium, provided there is no deformity of the pelvis. If there is deformity you will find the difference. Then your attention is called to the fetal head at midplane. That is where we generally apply our forceps, and that is where with forceps, if the diameter if less than it should be, that you do cerebral compression, and naturally cause fetal death.

The basis of this thing is pelvic measurements. Next you should ascertain the size of the fetus, and you can generally do that without the aid of the X-ray. Having these two facts well in hand, then you can determine beforehand as to whether you will do a podalic version or apply forceps. An attempt to produce podalic version after the head has passed the pelvic brim is absurd. You can hardly get the hand back into the pelvis—once in a while you can do it.

Doctor LeDoux is perfectly correct when he says do not persist in your forceps application. If you fail at one time, and the head is engaged, then go to your podalic version. I do not believe any sane man today would try to apply forceps above or at the pelvic brim.

Dr. Lucien A. LeDoux (closing): I want to

thank Doctors Sellers and Michinard for their remarks in regard to version. Doctor De Gravelles need not have designated the country doctor. In the city of New Orleans in the past ten days I have seen two cases of attempted high forceps extraction. Fortunately, they were not done by obstetricians.

The principal reason for bringing up this subject is that until recently very little work has been done in the way of studying the intra-cranial lesions of the newborn. Sharpe of New York in studying 100 cases at autopsy found intra-cranial oedema or hemorrhage in 9 per cent. There were no version cases listed in this series. Five per cent were from high forceps; 4 per cent were from prolonged labor.

This is one of the most important subjects that we have to deal with now, and I regret that it was not discussed by the neurologists and pediatricians.

Except in severe cases we are seldom able to make a diagnosis unless we resort to spinal puncture. Cases are usually diagnosed at about seven or eight months of age.

It appears that in the cases we have listed many benefits would be derived by substituting version for high forceps and many mid-forceps applications and I am sure after familiarizing himself with the technique both patient and physician will be greatly benefited.

VALUE OF DIATHERMY TO THE GENERAL SURGEON*

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AND

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That form of thermotherapy obtained through the use of diathermy is designated conversive heat. It is heat generated within the tissues of the body, by the passage of d'Arsonval current from one electrode to another, and is administered in so bland a manner and with such gradation as to eliminate all possibility of shock or trauma. The maximum point where the heat is generated is not on the body surface but somewhere in the tissues between the two electrodes and can be regulated by varying the size of these applicators. The older methods for applying heat brook no comparison with modern scientific apparatus which, in the hands of those skilled in its operation, can utilize a long-sought-for thermal agent to most any degree, on any part of the body, which is clean, sure, safe, without discomfort to patient and producing results in one-tenth of the time formerly required. While physiotherapy as a whole has been allotted to a special field, it is daily becoming more apparent that neither specialist nor general practitioner can willfully ignore the aid to treatment that this branch of medicine offers.

It is necessary that one have some working knowledge of electricity before electrotherapy can be administered efficiently. High frequency may mean one thing to the electrician and another to the physician. The former may speak of high frequency at 500 interruptions per second while the latter will not consider anything under 30,000 --this being the minimum at which human tissues ceases to respond by contracture. More often however medical high frequency goes well into the 100,000 or even into the millions. We consider a machine putting out 800,000 interruptions as one that will give good results provided the voltage is sufficiently high to drive the amperage through. A machine with a voltage above 30,000 is to be preferred.

The definition of d'Arsonval current is given by most texts as being a bipolar current of high frequency, high milliamperage and relatively low voltage. The amperage holds only when speaking of medical electricity and is not to be confused with the idea of the electrician who probably considers high amperage when in the hundreds. The most frequently used currents for comparison are the Tesla and the Oudin, the latter being unipolar, of low milliamperage and high voltage. In diathermy from 200 to 4,000 milliamperes are used. With this milliamperage, the right frequency and sufficient voltage, we have an agent that will serve as a valuable adjunct to treatment. To understand thoroughly the rationale of high frequency therapy it is absolutely necessary that one obtain a working knowledge of the fundamentals of electricity. These are best obtained from text books dealing with electricity in its application to medicine, on induction, beginners electricity, etc. One should know the difference between direct and indirect currents, the ampere, the volt, the watt, the ohm; electron, ion, cation, anion, etc.; and the make up of the machine, the method of induction, the current and its application.

The different tissues react differently in their resistance and conductive power to the flow of electric current. The skin offers little resistance and it a good conductor, facia is less resistant and gives better conduction and muscles offer great resistance and are good conductors. The blood and lymph vessels offer varying degrees of resistance and conductivity, bone structure is a good conductor and has great resistance and fibrous tissues offers greater resistance than any other. This phenome-

*Read before Orleans Parish Medical Society, January 26, 1925.

non in fibrous tissue is due to the lack of blood and lymph vessels and also to its compact structure which, fortunately for us, heats up faster and holds heat longer than normal tissue. That such tissue, if of recent formation, can be made to disappear by diathermy we have established beyond a doubt. Even if the scar be old it can be softened up, stretched, and with subsequent massage, will be found to become absorbed to a marked degree.

When sufficient voltage is used to force the current through the parts under treatment we observe one of the laws of electricity contradicted, namely a flow of current from electrode to electrode regardless of the resistance offered, the axiom being that currents of electricity follow the paths of least resistance. This is only applicable to high frequency with relatively high voltage and d'Arsonval current from a modern machine. One outstanding feature of diathermy is its positiveness in relieving the pain of acute congestion. This relief is accomplished without injury to tissue and is permanent in the majority of instances, a feature sufficiently attractive to warrant its employment by the surgeon.

We have used various types of electrode material in *medical diathermy* and our choice has finally narrowed down to block tin or silver mesh. Water or saline-soaked materials we mention merely to condemn them as being useless as well as dangerous to both patient and physician. Soap lather or shaving-cream assure the best contact between electrode and skin surface. For *surgical diathermy* numerous types of electrodes have been used, from the sharp-pointed needle to the button electrode of three-eighths inch diameter. Larger electrodes than the last named are not advisable as the operator would experience much difficulty in judging the amount of tissue destruction. A new cervical electrode, presented by one of us (C. L. P.) at th last session of the Southern Medical Association, Section on Urology, has been found eminently satisfactory in the treatment of endocervicitis. (See Fig. 1.)

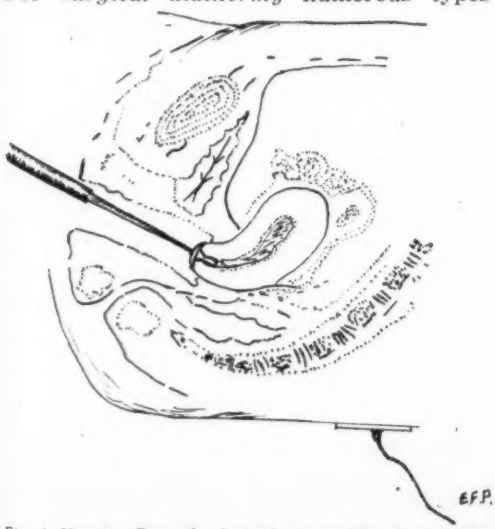

Fig. 1 Showing Peacock electrode in position for treating cervix

Too much stress cannot be placed upon the technique in the application of the diathermy electrodes, the amount of current to employ in the given case and the time to allow for such a treatment. Experience alone will bring success. We have not found that thermometers were of any real value in determining heat-production because the parts under treatment are, with few exceptions, inaccessible at point of maximum thermal production. We have been obtaining results at a much less degree of heat than is recommended in recent articles on the subject. It is not possible to construct a working chart as to the number of milliamperes necessary for any given special treatment, yet we never administer a treatment without, in some form, estimating the strength of current to be used. This can best be explained by stating that there are many different types of machines now in use, each with different makes of spark gaps and varying perceptibly in amount of voltage, amperage, etc. Then we must consider the difference in skin tolerance and resistance, areas and locations of application, the kind of electrode material used and the results desired. It is not within the scope of this paper to cover the minute details of technique of the various applications possible, but as an example we would relate that with our favorite machine, in giving a through and through treatment for relief of pain in the abdominal cavity, using electrodes of equal size, anterior-posterior, the point of tolerance by the average patient is between 25 and 50 milliamperes per square inch.

Among the conditions amenable to *medical diathermy* should be mentioned: pelvic and abdominal adhesions, nephralgia, chronic salpingitis, chronic cholecystitis, various forms of fibrosis, arthritis, sacroiliac arthralgia, loss of function of muscles due to disuse, certain types of dysmenorrhea, sprains and injuries with acute swelling, neuralgia, myalgia, epididymitis and prostatitis. Whereas time will not permit

our dwelling upon the various ailments in which we have been successful with *medical diathermy*, we cannot allow this opportunity to pass without again emphasizing the satisfactory results we have attained in epididymitis, arthritis, endocervicitis and dysmenorrhea.

The application of the electrodes for *medical diathermy*, while they might appear intricate at first glance, are simple enough if one will but conform to certain details. Poor technique, whereby the operator substitutes *stimulative* for *sedative* technique, would naturally do the patient more damage than good. Only a few days ago a case of epididymitis came under our observation which had been improperly treated with diathermy in which the condition had been made decidedly worse by the procedure. A second application of diathermy, properly given, resulted in prompt improvement. The pains of post-operative abdominal adhesions, one of the bugbears of the surgeon, are promptly ameliorated by the *sedative* technique of diathermy. How this is accomplished we illustrate in Fig. 2.

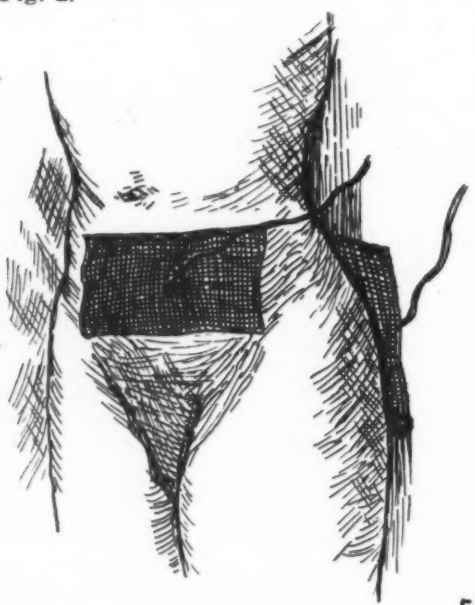

Fig. 2 Showing Mesh Electrodes in position for the treatment of post-operative abdominal adhesions

Surgical diathermy (electro-coagulation) should not be confused with *fulguration*, for in the former there is no sparking, therefore no carbonization of tissue, but a cooking process whereby the coagulation of tumor cells can be most effectively carried out, the degree of destruction being governed by the size of the electrode, the amount of current used and the length of time of application. By this procedure the surgeon is enabled to perform minor and major surgery covering a wide range, being assured of a minimum amount of shock and hemorrhage, with the added advantage of a sterile wound which heals quickly and without scar. Among the conditions which are being successfully treated with *surgical diathermy* are: superficial warts, moles, and other skin tumors including epithelioma, caruncles of the female urethra, papilloma of urethra and bladder, chancroidal infections, ulcers, abscesses, para- and periurethral gland infections, endocervicitis, bartholinitis, skenitis, etc.

TABULATION OF CASES TREATED WITH DIATHERMY

	Improved	Not Improved	Total
BLADDER TUMORS			
(a) Benign	8	1	9
(b) Malignant	0	4	4
URETHRAL TUMORS:			
(a) Benign	17	0	17
(b) Malignant	1	1	2
CHANCROIDS	12	4	16
GRANULOMA	6	0	6
VENEREAL WARTS	7	0	7
PARA-URETHRITIS	5	0	5
ENDOCERVICITIS	10	1	11
EPIDIDYMITIS	50	2	52
EPIDIDYMO-ORCHITIS	2	0	2
ARTHRITIS	12	0	12
LUMBO-SACRAL ARTHRALGIA	4	2	6
PELVIC ADHESIONS	4	2	6
ABDOMINAL ADHESIONS	4	1	5
URETHRITIS	5	3	8
PROSTATITIS	4	4	8
NEPHRALGIA	2	1	3
VASITIS	6	0	6
TOTAL	159	26	185

FIG. 3.

Since making our preliminary report on the treatment of 73 cases by diathermy before the Section of Urology, of the American Medical Association, in June, 1924, at Chicago, we have been able to add 112 cases, bringing the total to 185. As will been seen by referring to the tabulation, Fig. 3, 159 or 85.9 per cent of cases were improved by diathermy, while 26 or 14 per cent were not improved. Many of the cases in the "improved" column actually represent cures, but as a definite end-result statistics are not available, due to the fact that many of our patients were from out-of-town and left before a final appraisement could be made, it is deemed best to err in favor of the patient rather than be inaccu-

rate. Eliminating the cases of advanced malignancy (all cancers treated were in the inoperable stage), our failure to achieve results can be ascribed to two factors: faulty technique in treatment or failure on the part of the patient to cooperate intelligently.

CONCLUSIONS

1. Medical diathermy, if evaluated as a pain-reliever alone, cannot be over-estimated as a link in our therapeutic chain. Its possibilities in the management of inflammation and fibrosis are not yet sufficiently appreciated by the profession.

2. Surgical diathermy offers to the general surgeon a valuable adjunct in the treatment of many surgical conditions refractive to the usual means of treatment heretofore employed.

DISCUSSION

Dr. W. A. Lurie: I would like to ask a question or two, perhaps to impress the points made. In their experience has there been any way to determine the amount of heat and length of time that will be required for perhaps a sedative treatment on the one hand, or for the production of an antiseptic effect on the other, or a destructive effect? Dr. Peacock states that we must be very careful about the destruction, that it penetrates deeply and sometimes we find the depth of penetration and destruction greater than anticipated. How does one guard against that?

In cases of neuritis, and other painful conditions which do not seem to respond very kindly to sedative diathermy (perhaps due to faulty technique) I have thought it necessary, in these instances, to begin with a low amperage and give the treatment over an extended time rather than to use a higher milliamperage and give a treatment of a comparatively shorter time. I would like to know what Dr. Walther would say relative to such a procedure?

From experience with diathermy for the relief of post-operative pain, I can heartily agree with the essayist in that there is nothing like a good, well timed, well given diathermy treatment to relieve all pain. Traumatic joints will get well decidedly quicker. The patient will be relieved of a longer convalescence by a properly timed, properly given and early enough given treatment of diathermy. The subject of physiotherapy, as Dr. Walther started, embraces many methods of treatment besides just diathermy. It includes all forms of electrotherapy and the energies derived from radiation, as well as scientific physical manipulation, but as the paper did not go into these phases, they are not for discussion at this time.

I believe, with Dr. Walther, that physiotherapy, particularly diathermy (which is in its infancy), will be one of the potentialities of the future.

Dr. C. L. Peacock: We have here the mesh (illustrating) mentioned by Dr. Walther. It may be obtained in different sizes or by the yard from any electrical supply house. This is the material used for electrodes in the treatment of adhesions, epididymitis, arthritis, etc. These are some of the surgical electrodes (illustrating) different sizes, shapes and makes. Cervical electrode, button electrode, ball and needle electrode. The button is used for the destruction of cancer or large areas under the direction vision of the eye. The ball for the cavities and deeper seated lesions. The needles for warts, caruncles and similar conditions.

To anyone taking up diathermy there are a few points to be emphasized:

The first is a good machine; without this you cannot obtain results. Diathermy is really something different. One cannot push a button and then let the machine do the work. It is necessary to know how, why and when; study the case as well as the methods of application and then proceed with a perfect technic and the results will speak for themselves.

A knowledge of electricity is another and very important item. We do not expect everyone using diarthermy to be an electrician or electrical engineer, but they should know something of the fundamentals of electricity.

Technic is the most important thing in diathermy. If this is not absolutely correct in every detail failure is the result, and especially does this apply to sedative type of medical diathermy. Through faulty technic you are apt to shock the patient, and in lieu of allaying pain, aggravate it.

An example of medical diathermy for the relief of pain is in lumbar region; place the smaller electrode over the site of pain and the larger on the abdomen (illustrating the methods of application to obtain the point of maximum heat by varying the size of the electrodes). Fig. 4.

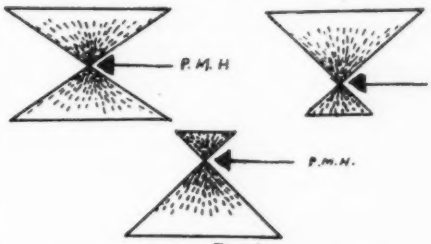

Fig. 4.

In surgical diathermy one must be very careful of the smaller or active electrode, as the destruction of tissue is much deeper than can be seen (illustrating).

Diathermy differs from fulguration in many ways. In the former the electrode is in contact with parts, no arc is formed, therfore no sparking with the formation of carbon. The heat is generated in the tissues and the amount of destruction will depend on the size of electrode, amount of current used and time of application. In fulguration there is sparking with the formation of carbon, which is a non-conductor of electricity, therefore placing between our electrodes a form of insulation which prevents the destruction of tissue except at point of contact (illustrating the depth of destruction in diathermy and fulguration). Fig. 5.

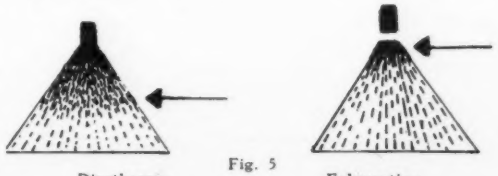

Fig. 5

Diarthermy Fulguration

Dr. H. W. E. Walther (Concluding): There are two types of doctors: the one an advocate of electrotherapeutic treatment; the other who says it is no good—he has tried it and found it wanting. I did not invest in diathermy apparatus until 1923 when demonstrations, to my satisfaction, were observed by me in the leading hospitals of Chicago. I have done a great deal of experimental work in diathermy. The attitude so far of the public towards this work has been warranted. Machines have been sold by manufacturers, and claims made that could not be substantiated. But that day has passed and there is not a man in this audience who can afford to remain apathetic to diathermy very much longer.

The work in diathermy is time-consuming and I wish here to express my thanks to Dr. Peacock for his untiring efforts in aiding me carry out this work on such a large scale. These treatments take thirty-five to forty minutes, and sometimes an hour. The busy surgeon cannot do it himself; the busy practitioner cannot do it himself. The practical way is to have a physiotherapy department connected with the hospital where the doctor does his work, to be supervised by someone competent to do this work, and see that it is done, efficiently. For unless it is done efficiently it is valueless.

Regarding machines: The portable machines will not do the work which larger machines will do. For surgery, the destroying of tumor tissue, etc., you have everything that is desired in the portable unit, but in ortheopedic work, where you want intensive penetration, as in hip joints and lumbosacral articulations, it cannot be done with the smaller machine satisfactorily; you burn out your machine. You must have a large machine with sufficient power to do the work. A machine with a voltage of 3,000 cannot penetrate all parts of the body, but with 35,000 volts you can go through any portion of the body. The minimum voltage of a good diathermy machine should be 10,000 volts.

THE MASTOID AS A PROBLEM OF THE GENERAL PRACTITIONER*

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The chief problem of the general practitioner regarding mastoiditis is its prevention, and here the burden generally falls when upon the shoulders of the family physicians.

Pathologically, mastoiditis must always, or nearly always, follow an infection of the middle ear, but clinically, cases are met with where the middle ear disease is so trifling that the hearing is normal, and the drum membrane is of natural appearance, and yet there is present mastoiditis with abscess formation.

Frequently, we make a grave, yet pardonable, error in allowing a severe otitis media to develop by overlooking its beginning on account of there being no complaint from the patient of pain in the ear; especially so in three diseases most conducive of otitis media,—pneumonia, influenza and scarlet fever,—the patient is very likely to be so obtunded mentally as to fail to feel pain in the ear during any stage of the process. The patient not complaining of pain during this state of mental lethargy may easily give us a sense of false security and throw us off our guard in regard to this very important condition. Even though this mental lethargy be lacking, there may easily be a middle ear involvement without pain, owing to a certain amount of drainage through the eustachian tube, this drainage relieving the pressure which is the cause of pain.

The problem of the mastoid falling upon the general practitioner is best solved by the early recognition and immediate treatment of an oncoming otitis media. First of all, do not be deceived by the patient's not complaining of pain in the ear. In any condition which may lead to middle ear infection, keep the ears under daily observation. In cases where the infection is severely virulent, such as influenza, pneumonia, scarlet fever, etc., the ears should be examined morning and evening.

At the first evidence of otitis media get busy. If the ear drum is merely pink or reddish, local treatment will often abort the forming abscess. In my private practice I have had excellent results with the following treatment, for which I am indebted to Dr. Joachim, of New Orleans:

Iodized Phenol Gtt. VIII.
Glycerine Z. L11.

Five drops in ear three or four times daily. McKenzie recommends the installation of 12 per cent carbolic acid in glycerine. The patient should be lying on the sound side.

The drum should be inspected frequently, and if the symptoms remain unabated, and redness and swelling of the membrane show no sign of lessening, the membrane should be incised at once.

An excellent local anaesthetic for this procedure is a mixture of equal parts of crystals cocaine, menthol and phenol, which readily liquidifies.

A few drops instilled into the ear and left twenty minutes will render the incision practically painless.

After the incision the ear should be frequently irrigated with a strong boric acid solution. McKenzie recommends the occasional instillation of 12 per cent phenol in

*Read before the Louisiana State Medical Society, Opelousas, La., April 21-24, 1924.

glycerine in order to prevent mixed infection, especially staphylococcal, which may lead to a chronic otorrhoea. During the stage of drainage the patient should lie on the affected side.

It is best not to use any oily preparations in the ear at this stage, as the oil not only has a tendency to block drainage, but mixed with the debris becomes rancid and merely adds to the irritation.

The factor most responsible for otitis-media in children is the infected adenoid and tonsil. These, of course, should be removed at a suitable time.

Among intra-nasal conditions conducive of otitis media may be mentioned the deflected septum, sinusitis, and polypi, which conditions should be also corrected by the proper surgical procedures.

The practice of parents using old-time home remedies for acute earache in children cannot be too strongly condemned. Any case of earache should be seen by physician at the earlist possible moment

There are many regrettable cases where, in spite of the promptness and skill of the physician in treating the acute ear, mastoiditis will supervene. During the early stage the application of leches to the mastoid tip, followed by the constant ice bag, will often result in rapid resolution of the process.

If after these measures have been resorted to there continue high temperature, pain, redness, oedema, and pitting upon pressure over the mastoid, the case should be at once referred to the otologist for surgical interference.

DISCUSSION

Dr. J. H. McCaa (Chamberlain): I was called to see a patient whose pulse was 100 and respiration 20 Temp. N. The child had given no history of pain before. About two months previous he had middle ear trouble with discharge from the ear. He went to bed rather early one night—he would not talk—and the parents were uneasy and sent for me. I examined him and went into the previous history and found that he had middle ear trouble. I examined his mouth and throat, palpitated right mastoid and found it bulging. Friction over the mastoid showed no evidence of pain. The child was taken to the hospital and the next morning operated, and the mastoid cells were found full of pus. The pus was finding its way almost into the lateral sinus, but the child had never had pain previous or suffered from same.

Dr. C. C. DeGravelles (Morgan City): I want to report a case that is distinctly interesting as showing the absolute absence of pain that we frequently have in this condition. About a year ago I was called to see a little girl five years old with a temperature of 104° She had had a chill, two hours before I was called. I found nothing on which to make a diagnosis. I got a specimen of blood which was negative for malaria. This temperature persisted for four days without any clinical signs. Then I happened to remember the teaching that whenever a child had fever that could not be accounted for, look at the ear. I looked at the ear and found the drum ready to rupture; it ruptured that night. But the temperature kept up. There was no evidence of mastoid, but fearing mastoid involvement I referred her to Doctor DuPuy. He found mastoid involvement and operated. The child made an uneventful recovery, but on the day she left the hospital she had another chill and the temperature went up to 104° and remained there for two or three days, when the same condition arose on the other side. Doctor DuPuy had to do a double mastoid.

This child had absolutely no pain at any time. Pain is not an element in these cases, but if you have high temperature that cannot be explained, look at the ear.

Dr. Edwin Whitaker (closing): I am glad to hear that some of the men have had an experience like mine. Some of the men in Baton Rouge said it was practically impossible to have an otitis media without pain.

I want to refer to a case of that kind that I saw in the Sydenham Hospital in Baltimore. A child six years old had been running a fever for two weeks. She was treated, but the fever remained. In giving the child a physical examination we found inflammation of both ears. There was bulging of the ear drums. A mastoid was done, but the child died. If we had examined the child twice a day probably there would have been no mastoid at all. I believe you will agree that about 90 per cent of mastoids could be treated if we got into the ears soon enough and were not deceived by the patient's failure to complain of pain.

One paragraph I omitted. In examining the ears if you find redness and inflammation of the drum, if there is a bulging of Shrapnel's membrane, it is best not to temporize—do a parcentesis at once.

In closing, I would like to say that the general practitioner should have a head mirror and an ear speculum the same as a tongue depressor or anything else, and make use of them. In case of infective fever, such as scarlet fever, measles, whooping cough, diphtheria, influenza, examination of the ears should be done as regularly as you examine the patient.

HEART DISEASE.*

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This is indeed "the age of heart defects" and the greatest demand upon the public health today is the problem of preventive medicine in reducing the incidence and death rate in epidemic and infectious diseases; not alone because they are per se of grave importance, but because in them lie the suffering and incapacity of heart disease as a complication or sequellae of as yet unmeasured magnitude. Prevention,

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therefore, of the incidence of cardiac involvement will be in direct proportion to the accuracy of our knowledge of such diseases gained, by scientific study and carefully tabulated observations and the successful elucidation of their pathogenesis to the public in general.

That hearts seldom fail because of inherent defect but as a result of preventable disease constitutes information not properly appreciated by the physician, and unknown to the public.

Consequently the necessity for a physical examination of such a large proportion of the young men of our country, has awakened the public mind to physical hazard of ill health and poor physical condition thus disclosed, and aroused a searching interest in the relation of industry to his productive proficiency and to health in general, and a demand that adequate guidance be forthcoming to reduce the economic burden thus imposed and limit the destruction of life seen to be in such full progress.

Four percent or more of the young men called in the draft were disqualified by the examining physicians of the local boards, and finally by the army surgeons at the various camps, for organic heart disease, resulting in a total rejection of 42 per thousand, or more than 200,000 young men among the five million recruits examined, of military age. Alarming as these figures are, they do not include an unknown but what must be unquestionably, a considerable number of men who had defective hearts, but who were accepted or passed unnoticed. On the other hand, in drawing a conclusion as to the incidence of heart disease in general, we must not lose sight of the fact that many men were rejected whose hearts were sound, and that these figures do not include the female sex. Further, that these figures refer only to a twelve-year period of life in the nation, and have nothing to do with the unnumbered cases resulting from degenerative changes and syphilis, seldom seen in youth, but of high mortality percentage after forty.

Mortality statistics from civil life, however, grow increasingly more reliable, presenting comparative figures which permit conclusions of great accuracy and furnish a basis for the assumption that approximately four million people are affected with organic heart disease, and that the number is fast increasing.

Fourteen per cent of total deaths in the registration area, which is about 60 per cent of the area of the United States, result from heart disease, and not less than 200,000 deaths from the same cause occur annually in the country as a whole, and this number is increased by not less than ten thousand each year, causing an appalling mortality of one death in slightly less than every five from all causes whatsoever in persons of forty years of age or older; and one death in about every eight of the total deaths from all causes at all ages.

These staggering figures reduced to more comprehensive terms, disclose the fact that every three minutes during the 24 hours, a death results from heart disease, and that the position cardiac morbidity occupies is that of the greatest single cause of death in the United States, exceeding in importance in a social and industrial sense tuberculosis, as a public health problem; not because the number of deaths from heart disease out-numbers the mortality figure of the "great white plague about two to one, but the natural immunity of the human family which is being gradually developed by the resistance of the human organism against the tubercle bacillus, aids materially in repelling its onslaught, and, indeed, foretells its disappearance as a disease in the ages to come, even as yellow fever disappeared from Africa in the ages of the past.

Against heart disease which then causes more deaths than tuberculosis and cancer combined, there is neither natural nor acquired immunity, and such damage as the heart may suffer as a complication or sequella of other and preventable disease, even when recovery seems to have taken place, must be taken in to grave consideration as a source of potential weakness in all succeeding illnesses.

As a major item then for public health consideration in the prevention and control of this premier affection among diseases of death, and heaviest of the economic burdens placed upon its victim by handicapping him industrially, and finally, by cutting his life in twain, no disease with which we must contend reaches its magnitude.

Essentially, it is a disease of childhood and youth, and the proposition may be stated that it is never primary, but results from some other disease, thus presenting ever widening boundaries for development, while at the same time, demanding greater breadth of knowledge for its curtailment—a hoped for consummation holding forth much promise if one takes into consideration the successful elimination of typhoid

fever as a public health problem, by vaccination.

In the prevention of heart disease, assessment of the value of the methods employed depends upon a thorough understanding of the process of the disease and its etiological development, briefly summed up in this instance, by the dictum that public education, hygiene, quarantine, convalescence and early diagnosis, methodically applied and co-operatively controlled, in all epidemic and infectious diseases, will reduce the incidence of heart disturbance to a minimum in children, slow its progress in the adult, and lengthen the life and increase the comfort of the cardiac cases of late middle age, for, despite the utter seriousness of heart disease and its renal-vascular complications, it has been truthfully said, "there are few chronic diseases so amenable to treatment and so compatible with long life and comfort if handled judiciously, as cardiac cases."

The variation, therefore, of causative factors which are directly responsible for the development of heart disease presents those infectious and contagious diseases which are in their own importance, public health problems demanding solution, with especial reference to the child and youth, among whom it thrives in particular.

Rheumatism is the classic example and leader of the group, followed closely by such diseases as scarlet fever, diphtheria, infected tonsils and teeth, and cryptic foci, all bearing the classification of childhood diseases, and subject to successful quarantine in the vast majority of cases, while per se, they present markedly limited tendency to spread among adults.

According to Cabot, hearts fail as a result of three main causes: Rheumatism, which he places at 40 per cent, while others name figures as high as 60 per cent; Hypertension, 40 per cent, and Syphilis, 12 per cent.

These last two may be summed up by the terms degeneration and syphilis, and are confined almost entirely to persons over forty years of age.

The following figures were obtained in the examination of a group of school children who were considered normal at the time: 58 per cent had had measles, 33 per cent whooping cough, 18 per cent an attack of tonsilitis; they had come through these infections without developing heart disease up to the time of examination, whereas, another group of school children, also of York City, showed definite cardiac disturbance in the following ratio: 64 per cent had had tonsilitis; 45 per cent rheumatism, 35 per cent measles, 18 per cent pneumonia, 17 per cent diphtheria, 14 per cent chorea, 13 per cent whooping cough, 12 per cent scarlet fever.

The Department of Health reports of New York City covering about a quarter of a million examinations, show from 1.5 per cent to 2 per cent of school children have defects of the heart, while it has been estimated that perhaps 2 per cent of adults are in immediate need of medical attention for hearts that are beginning to give way.

The ratio of the incidence of heart disease to the above percentages is maintained with such constancy wherever careful examination of school children obtains, that no conclusion can be arrived at other than that quarantine against all forms of possible infection including mild colds and fevers, during the first decade of life removes grave danger from the child and, potentially, the adult.

This has been demonstrated by systematic examinations of school children from the sixth to the fourteenth year. In other words, tabulate the findings in the examination of a hundred children of seven years of age chosen at random and compare with the results of an examination of the same hundred children after they have reached the age of fourteen, and it will be seen that the number of cases of heart disease will have doubled.

The idea has long been more or less prevalent among parents and to some extent winked at by physicians, that so-called minor diseases such as whooping cough and measles (both showing very high mortality), chicken pox, and sometimes the more serious infections, may as well not be quarantined against since the child is bound to have them sooner or later anyway, and the earlier the better.

No hypothesis could be more seriously misleading than that, as I have attempted to show, for the older a person grows, the less likelihood of his developing such a disease, and the more improbable the damage to the heart.

To what extent a prolonged convalescence inhibits the development of circulatory debility the writer does not know; there can be no question but that a rapid return to everyday life either in young or old, following an acute infection, places a strain upon an injured heart which results often in permanent damage.

It is more and more appreciated that de-

generative changes in the adult whether due to scenescence, chronic infection, occupation or other cause, can be delayed and in no inconsiderate number of instances, prevented by periodic examinations.

If this applies so forcibly in the case of the adult, how much more essential it is that the same applies in the rule of health of the child in whom heart disease is an incipient affection tending to progressive development when unrecognized.

When the symptoms of cardiac debility are sufficiently prominent to attract attention, it is definitely certain that damage to the heart of a permanent nature has resulted which might have been prevented had a regimen of systematic observation and examination been followed.

Treatment, therefore, of a heart that is beginning to break down should begin by the removal at once of whatever focal infection might be present, and the institution of a regimen suited to the proper growth and development of the patient if a child, while adults should be carefully trained in methods that upbuild torndown compensation, and guard, particularly, against its recurrence.

THE INTERRUPTION OF PREGNANCY BY CAESAREAN SECTION WITH STERILIZATION OF THE TUBES

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Considerable number of gynecologic operations are performed in those cases, in which the interruption of pregnancy with contemporary sterilization of the tubes is—according to the physical examinations—unconditionally indicated. Many of these cases are scarcely suitable for extensive surgical treatment on account of the patient's general condition. As is well known these patients are suffering from well advanced pulmonary tuberculosis, decompensated valvular diseases or chronic nephritis, cases, in which a pregnancy, labor or major surgical operations, connected with severe anatomic destructions, loss of blood and long bed rest, should not be risked. Experience shows that very often the simple evacuation of the uterine cavity aggravates the patient's general condition and chiefly the condition of tuberculosis. In all of these cases the most suitable treatment is evidently the interruption of pregnancy with simultaneous sterilization of the tubes by means of the most careful and gentle method, sparing the patient the bitemporary operation, which causes very often severe excitements.

The simple evacuation of the womb, which is often connected with unexpected degrees of hemorrhages and all manipulations, which include dilatation, rupture of the membranes, administration of drugs producing uterine contractions (oral or parenteral) cannot be considered as suitable methods, since they aggravate very often the general condition (tuberculosis) and on the other hand the proper aim—the sterilization of the patient—is not yet reached by means of all these methods. All other treatments, the vaginal hysterectomy with subsequent bilateral salpingectomy, the vaginal and abdominal panhysterectomy, the supravaginal amputation are operations of long duration and are connected with the danger of after-bleeding and infection. All these circumstances are able to aggravate the patient's general condition.

Walthard in 1912, and the following year Sellheim and Anderes, described the interruption of pregnancy with contemporary sterilization of the tubes in cases, in which the interruption of gestation and the exclusion of subsequent pregnancies are absolutely indicated. Recently Doerfler and Frey give statistical reports about the operative results.

The operation is substantially a classic caesarean section, which can be performed in any stage of the pregnancy and which is exercised in different manner by the various authors.

I performed this operation with several modifications in fourteen cases, as follows:

A median incision is made through the abdominal wall between the symphysis and umbilicus, measuring not more than four inches in length. The patient is raised in moderate Trendelenburg position, a self-retaining retractor is adjusted and the uterus is then eventrated. The intestines are well packed off with gauze pads. On the anterior wall of the eventrated uterine body a transverse incision is made through the perimetrium, measuring 2 inches and the perimetrium is then pushed downward (partly blunt and partly with the scissors). On this denuded portion of the uterine wall a short sagittal incision is made, which opens the uterine cavity. In most of the cases the uterine content can be easily removed blunt with the finger (rarely the

blunt curette is necessary). The cavity being completely evacuated, a whole ampule pituitary extract and an ampule of ergot should be injected into the myometrium, the result is an immediate contraction. The retrograd dilatation of the cervix I have never accomplished, and in spite of this I never observed retention of the lochia and its consequences. The closure of the uterine wound is made by a running catgut-suture deep in the myometrium, avoiding the mucous membrane. Next 5-6 interrupted catgut-sutures unite the entire myometrium and finally a laced silk suture closes the replaced peritoneal flap. During this whole act bleeding rarely occurs. After renewing the isolating gauze pads, the sterilization should be performed. This may be accomplished by simple resection, by the wedge-shaped excision of the interstitial part of the tubes or by salpingectomy. All these methods have the disadvantages to cause oozing from the hyperemic tissues and on the other hand the ligations of the small vessels prolong the operation, this latter being not indifferent to the patient. To avoid this disadvantage, I perform the sterilization as follows: after picking up the tube with a clamp, I squeeze a loop of the tube and in the so formed furrow a catgut ligature is made. The tip of this loop is then cauterized. The advantage of this method is, that the annexes are not rooted up (this is in cases of chronic and subacute inflammation very desirable) and the entire act may be accomplished in a few minutes. After the bilateral sterilization, the abdominal wound is closed in the usual manner.

Instead of the above described sterilization, the castration or the postoperative X-ray treatment may be also used, but experience shows that the endocrine disorders following castration are much more severe than the malaises, caused by menstrual bleeding.

I performed this operation in 8 cases of well advanced pulmonary tuberculosis, in 4 cases of mitral stenosis (decompensation) and in 2 cases of chronic nephritis. The patients were between the ages of 21-36 years. The pregnancies were 3-5-6 month old. Seven of the patients were multiparae and seven primiparae.

Concerning the anaesthetic, I never performed the operation under general anaesthesia, on account of the patient's general condition. In 6 cases I worked with infiltration of the abdominal wall (1 per cent novocain) and in 8 cases with lumbar anaesthesia (4 per cent stovain). In all cases I had absolute analgesia. In 2 cases the patients were nauseated and suffered from slight headaches after the lumbar anaesthesia, without further complications.

The described operative method has many advantages in well selected cases. It can be performed in 15-20 minutes, is not dangerous for the patient, the technic is simple, does not cause severe anatomic destructions, may be accomplished without general anaesthesia and enables the patient to get up very soon.

A PRELIMINARY NOTE ON THE TREATMENT OF AMEBIC DYSENTERY WITH STOVARSOL*

by

F. M. JOHNS, M. D.

and

S. CHAILLE JAMISON, M. D.

NEW ORLEANS

Dr. E. Marchoux reported in the official French Bulletin of the Societé Pathologie Exotique, (1) February 14, 1923, the eradication of E. dysenteriae cysts which had persisted in a patient following the clinical cure of his dysentery with emetine, by the use of Stovarsol (oxyaminophenylarsenic acid). Doses of 0.25 gm. were administered by mouth twice daily until 20 successive doses were given. Three cases of E. coli infection were similarly sterilized. Remarkable clinical results were also reported in chronic amebic dysentery, but these were followed by relapse in from ten days to three weeks.

This publication by Marchoux was soon followed by one by Nogue and Leger, (2) who reported three cases treated, one of whom relapsed nine days later and had to be treated with emetine.

Delanoe (3) reported the rapid clinical cure of two cases, one of which was of four years' duration. Subsequent observation was not reported.

At the Conference on Tropical Health problems held in Kingston, Jamacia, in July, 1924, Drs. Ch. Garin and P. R. Lepine (4) reported the use of Stovarsol followed by hypodermic administration of emetine

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*From the Department of Medicine, Tulane University School of Medicine.

or of acetylarsan, in a series of forty cases of amebiasis. No detailed studies of the effect of Stovarsol alone were given and the number of ultimate cures was not tabulated; neither was the length of time stated that patients had been observed.

Dr. Lepine kindly furnished one of us (Johns) enough Stovarsol (through the courtesy of the manufacturers, Poulenc Fréres, Paris) to treat several cases of dysentery. A larger quantity of the drug has been furnished for experimental purposes by Messrs. Powers, Weightman and Rosengarten, of Philadelphia.

Up to the present time we have treated twenty-seven cases of amebic dysentery with Stovarsol. The results have been so remarkable that we feel justified in making this preliminary report. The cases have ranged in severity from chronic dysentery of long duration to active, severe, emaciated clinical cases. The duration of the disease has ranged from a few weeks to as long as 25 years. Diagnosis was confirmed in all cases by the presence of endamebae in the stools or in scrapings obtained through the proctoscope, and was always verified by the use of wet-fixed preparations stained by the iron-alum-hematoxylen method of staining the nuclear structure.

In all instances (except one patient that received a smaller amount) Stovarsol in 0.25 gram doses administered three times daily for one week caused complete subsidence of their symptoms, the improvement usually beginning about the third or fourth day of treatment.

The first case treated was found to have developed encysted endamebae on the fifteenth day following Stovarsol treatment, in spite of the hypodermic administration of emetine during the interval. The fourth case presented a clinical relapse on the sixteenth day, vegetative endamebae being found in the semi-liquid stool.

Three cases remained well and free from endamebae up to the present time upon the one course of treatment. Two of these received seven 1-2 grain doses of emetine, which was hardly sufficient to account for a cure by itself. These patients have been under observation for 99, 74 and 70 days, respectively.

The remaining cases have received a second course of stovarsol seven to ten days after the first and consisting of three 0.25 gm. tablets per day for seven days, or two tablets for twelve or fourteen days.

Up to the present time (Jan. 20, 1925) we have been able to follow with clinical, proctoscopic and microscopic examination twenty cases for an average period of fifty-five days following completion of their treatment.

Sixteen cases have remained well and free from endamebae for the period of observation.

Four cases have relapsed; three of these clinically, and one developing cysts. The clinical relapses occurred within two weeks and were in patients having had dynestery for three to five years almost continuously. It must be noted, however, that the lesions as found by proctoscopic examination had subsided to a remarkable degree, a single rectal granulation the size of a silver dollar in one instance and pin point ulcerations in the other.

Many of the apparently cured patients have been proctoscoped, and stool examinations were repeatedly made, all with negative findings. It has been our experience that vegetative endamebae can be demonstrated in rectal lesions by proctoscopic examination or cysts can be found in formed stools within twelve to fifteen days following completion of a course of treatment of whatever kind in practically all cases that subsequently relapse. This experience leads to the hope that these cases treated with stovarsol and which are still free from symptoms or endamebae may be permanently cured of their infection.

Long standing cases with massive involvement of the bowel walls present the same difficulty of treatment that applies in other tissue invading parasitic diseases, the parasites being protected by impermeable walls of exudate and tissue proliferation. Indeed, it is evident that no known specific will cure in all instances. It is hoped that with the establishment of definite knowledge regarding the tolerance for this drug when given over longer periods of time than we have dared employ it, that the results will be even better than are here indicated.

Stovarsol (acetyloxyaminophenylarsenic acid, or "190") is an arsenical designed by Levaditi and Navarro to be administered through the digestive tract. It was synthetized by Fournier, Guenot and Schwartz (5) and has been the subject of considerable European investigation in the treatment of syphilis. It is apparently partly absorbed from the small intestine and then excreted through the large intestine. It is relatively non-toxic. The only untoward effect attributed to it that we have found was a dull headache in one instance, mild

rash in another, and probably a rash with slight temperature in a third case.

We have not attempted to determine the proper dosage of stovarsol, but the following observations may be mentioned:

One-quarter gram per day in one case failed to influence the symptoms to any great extent in seven days.

One-half gram per day has given favorable results in two sub-acute cases.

Three-quarters gram per day for seven-day periods has shown the most uniform results in the first course.

It will be necessary to follow these and other cases for a considerably longer period of time before we will know whether the apparent cures are complete or whether they are temporary. It is our intention to report more fully on these and other cases treated subsequently after a sufficient number have been under observation a sufficient length of time to determine the permanency of the results.

In the meantime, our experience so far indicates that we have in Stovarsol a supposedly harmless remedy for amebic dysentery that compares quite favorably with anything previously employed.

We desire to express our thanks to the following doctors for their assistance in referring cases and in the observation of this work: Drs. E. D. Martin, J. B. Elliott, H. E. Nelson, J. E. Landry, M. Bradburn, E. Bass, J. C. Cole, P. J. Kahle, J. Lescale, G. S. Bel, J. H. Smith, A. L. Levine, L. J. Stookey, A. M. Parson, and F. Loria.

1—Marchoux, E. Bull. Soc. Path. Exot., 1923, Feb. 14, Vol. 16, No. 2, pp. 70-81.
2—Nogue and Leger. Bull. Soc. Path. Exot., 1923, Vol. 16, No. 7, p. 557.
3—Delanoe, P. Maroc-Medical, 1923, May 15, No. 17, p. 150, and Bull. Soc. Path. Exot., 1924, Feb. 13, Vol. 17, No. 2, p. 119, 122.
4—Garin, Ch., and Lepine, P. R. Proceedings of the International Conference on Health Problems in Tropical America, held under the auspices of the Medical Department of the United Fruit Company in Kingston, Jamaica, July 1924..
5—Levaditi, C., and Navarro, Martin, Fournier and Schwartz. Ann. l'Inst. Past., Nov. 1922.

DISCUSSION

Dr. H. B .Gessner: Stovarsol is a subject in which I am keenly interested.

About two weeks ago Dr. Johns made a general laboratory survey for me in the course of which he examined a stool and found that I was the carrier of amoebae. Several years ago I had bowel trouble when I spent some time in Arizona. At this time Major Vedder examined a stool for me and said that I had amoebae. He showed them to me, large amoebae with a thick ectosarc travelling rapidly over the stage of the slide but without any blood corpuscles. I took emetin for several days, which was certainly not enjoyed—it is a painful experience.

Dr. Johns gave me twenty-one tablets, to be taken three a day. I took them very regularly (but not exactly as he wanted me to), usually before eating; sometimes I forgot and took them after meals—at any rate, three a day for seven days. When the last one was taken I felt pretty bad and had a temperature of 100° F. Instead of attending the society meeting of that night I decided to stay home. Next day, temperature 102° with a slight rash. I did something that doctors will do—I went to the bath room and, notwithstanding the rash, took a hot bath. The next day (Wednesday) I had two very red eyes and was literally covered with a rash simulating measles. Dr. Cassegrain thought it was measles. My eyes troubled me to such an extent that I had Dr. Bahn examine them. He thought it was "measle eyes" and prescribed bathing them with hot boric acid solution, and applying ammoniated-Mercury ointment to the lids. I did it once, but had no discharge to wash away, so stopped the treatment. My eyes were very uncomfortable. Tuesday temperature 102°; Wednesday 101°; Thursday a little over 100°; Friday 99.6°; Saturday went out for an automobile ride; Sunday and Monday stayed at home; Tuesday went back to work.

I do not think that I had measles, having had neither conjunctial nor nasal nor bronchial catarrh, but I did think it was measles until I had seen Dr. A. Nelken at Touro. He had had patients to whom he gave salvarsan with resulting arsenic rash, like measles. When a small boy ten years of age I had measles. Last year I had several cases of measles among railroad employees; recently I have not been in contact with anyone who has had nasal, conjunctival or bronchial catarrh or a measles eruption. At the time I was exposed to the contagion I did not have measles—this year I was not exposed, but I did have what looked like it. It is reasonable to suppose that I had an arsenic eruption from stovarsol.

Dr. Johns has made another examination and this time no amoebae were found.

Dr. Randolph Lyons: I have had no experience with stovarsol, excepting two cases consisting of one week's preliminary treatment. for which Dr. Johns gave me some of this drug. I hope that Dr. Johns and Dr. Jamison have found some remedy that will take the place of the old treatment of dysentery. I can remember some years back when we started using ipecac pills, and later emetin was discovered which I think I was the first to use in this country. I was having it made and using it before the reports came out. The dosage was one-third grain, once a day, and they claimed that two grains affected a cure ! ! ! It was being used for hemorrhage, bronchitis, etc., and was curing everything.

Like every new drug we are likely to overdo it. Now, stoversol has cured malaria and a great many other things. We have to get down to facts and take things seriously, but not be overenthusiastic. We know that emetin alone rarely cures amebic dysentary. The old treatment is an extremely difficult one and in some cases impractical. In some cases it is impossible to give ipecac. One elderly patient to whom I had given ten grains of emetic still had amebas in his stool, so I was delighted to have the opportunity of trying the new drug. Although he still has marked ulceration of the rectum, I have not been able to find any vegetative ameba in the stools.

The second case was a lady who said that she could not swallow large ipecac pills: I did not want to give here the emetin alone, so used the stovarsol. Her dysentery is very much better, but she still has some looseness of the bowels and

symptoms which look as though they might be due to arsenic. On the fifth day she developed severe neuritic pains of the lower limbs, associated with palpitation and weakness and urticaria. She had been going around with her dysentery before we started this treatment but being almost at the end of her treatment, I persisted in giving her the tablets. She still feels pretty weak, but her bowels are improved. The first case, (the old man), developed intercostal neuralgia—during the last few days he has shown some improvement.

I am under the impression that stovarsol is responsible for the neuritis and neuralgia in these cases, nothing very serious, not more so than the reaction which might follow the administration of ipecac and emetin. Emetin has to be used very carefully also.

If stovarsol fulfills its promise as a cure it is one of the greatest recent offerings to medicine and the doctors who have started its use are certainly to be congratulated. But, let us use a little bit of caution first, until we get more data on it.

Dr. A. L. Levin: I have been very much interested in the use of stovarsol in cases of amebiasis ever since Dr. Johns spoke to me about this drug. It is particularly interesting to me because of the simplicity of the treatment. The treatment of amebiasis by the method we have been employing, I believe, is the most unpleasant in the entire field of medicine; at times it is intolerable to the patient, the difficulty the druggist experiences in having the proper coating of salol on the ipecac pill, and other unpleasant features. If we can find some drug which will destroy the amoeba, is simple to administer, easy for the patient to take and without discomfort, unquestionably it will be quite a step forward in the treatment of amebiasis.

I have tried stovarsol on fourteen cases of amebiasis so far. In the first three cases there was a recurrence after administering eighteen tablets of stovarsol as advised, one three times a day.

In ward 18 of Charity Hospital I had a case which had been treated a year previous. He had taken in the neighborhood of four hundred ipecac pills and received twenty-two injections of emetin. One year later he developed the same symptoms of dysentery. Without putting him to bed or changing his diet or resorting to bowel irrigation I started on stovarsol. After he had taken four tablets all the dysenteric symptoms disappeared; stools became firm and normal in consistency. Two weeks later, after the stovarsol had been discontinued he developed a loose stool, and on examination I found the amoeba histolytica. I gave him a second course of two tablets per day and six injections of emetin. It has been a month since this course was finished. He is perfectly well and proctoscopically the ulcerated mucous membrane has cleared up entirely.

Another case who took the first treatment consisting of eighteen tablets with marked improvement, returned ten days later complaining of recurrence of dysentery. Examination of the stool revealed the vegetative Amoeba. I proceeded as in the first case with another course of Stovarsol plus Emetin; the results so far have been satisfactory, hence I have combined Emetin with Stovarsol in all other cases.

How long it is necessary to use Stovarsol to obtain a complete cure, we do not know. It took us years of experimentation to definitely decide that it requires one hundred Ipecac pills. In time we shall probably know how many Stovarsol tablets are required for a complete cure. However, we must bear in mind that Stovarsol is an arsenical preparation containing 27 per cent Arsenic, and I have seen several cases with symptoms of arsenical poisoning. We must bear this in mind.

So far, my impression is that Stovarsol is one of the most favorable drugs we have today in combatting the symptoms of dysentery. As to procuring a definite and permanent eradication of amoeba, time will tell.

I have tried Stovarsol also in cases of other intestinal parasites such as Strongyloides, hookworm and flagellates. My impressions are as follows:

Two cases of Strongyloides have not been satisfactory. I have not found as yet a drug which will kill Strongyloides. I have tried everything that has been suggested.

In two cases of Strongyloides where I advised appendectomy we found strongyloides in the lumen of the appendix. It is possible as I have stated formerly, that when the lumen of the appendix becomes infested with parasites no drug will reach that part of the intestinal tract, and the only way to get rid of them is to remove the appendix.

In cases of Flagellates, I believe we have in stovarsol an excellent drug. The flagellates disappear very quickly.

In two cases of hookworm, Stovarsol absolutely failed to destroy the parasites.

Prof. F. Valenti reports two cases of malaria treated with Stovarsol with excellent results. One was Tertian and the other Quartan with enlargement of the spleen. The Quartan type was of one year's standing and had resisted the treatment of Quinine, but yielded to Stovarsol. The enlargement of the spleen disappeared very promptly.

Dr. Leon Bernard reported before the Academy of Medicine of Paris two cases of Enteritis with protozoa cured by the administration of Stovarsol. One was a case of Lamblia and the other was a case of dysentery caused by balantidium coli of 17 years' duration. Both cases were cured completely.

In my opinion, it is absolutely worth while to continue our experimentation with the use of Stovarsol in intestinal parasites.

Dr. C. C. Bass: Should Stovarsol prove as beneficial and effective in amebiasis as Dr. Johns and his co-workers have found it so far, it will certainly be a great advancement over other remedies. Even though it should not be more effective in the treatment of amebiasis, it is still an important discovery, since the simple administration of a simple drug by mouth is far preferable to the quite tedious and much more difficult treatment by hypodermics, ipecac pills and irrigation, etc.

I have watched some of these cases treated by Dr. Johns and I have been very much impressed with the fact that they are getting better results than I have personally ever seen gotten with emetine. If such results are obtained now in this early stage when so little is known about the drug and it is perhaps not being used in the best way, it is reasonable to expect better results later. Unquestionably, in stovarsol we have another very effective (if not the most effective) remedy for amebiasis. It is one which we hope will prove to be a specific cure for the disease.

Dr. F. M. Johns (closing): I do not think there is very much to say in conclusion. The fact re-

mains that sixteen cases in which stovarsol was given have remained well for a considerable time. A longer time must elapse before we can positively claim them cured; nevertheless, by proctoscopic inspection, and with examination of the stool, I believe we can tell whether the patient is going to relapse or not within three or four weeks.

Now, when it comes down to the cure of long-standing cases of amebiasis, it will probably take a very long time to saturate the patient with any specific and effect a complete cure. Anyone who has ever seen at autopsy the thickened walls, sinuses and lymph channels actually occluded with clumps of amebae will readily agree with me in this. On the other hand, the results obtained in some of these cases have been far in excess of theoretical considerations.

It appears to me now as if stovarsol is certainly a specific amebicidal agent, but that we need to know much more of its pharmacology in order to use it to the best advantage.

HUMAN MYIASIS DUE TO OX BOT FLY LARVAE (HYPODERMA LINEATA)*

J. A. LANFORD, M. D.
And
C. M. WARNER, M. D.
NEW ORLEANS.

Infection of human beings by the larvae of the Ox Bot fly, while rather rare is not so common but that another case would be interesting to add to the records.

As this condition occurs among humans, it is included in the broad classification made by Hope of Myiasis, which term covers the invasion of the human system by all types of fly larvae. However, Joseph has divided human invasion by fly larvae into myiasis interna or intestinalis, and myiasis externa or dermatosis and it is in this latter group into which Ox Bot fly larvae invasion falls.

The case was seen by one of us (Dr. Warner) in the wards of the South Mississippi Charity Hospital and is as follows:

"A white male child of 22 months was admitted into the hospital on October 21, 1923, suffering with an enlargement of the right testicle and the following additional information:

Four months previously, the mother noticed that the right testicle was slightly larger than the left. The discovery was made while bathing him and not because of any complaint on the part of the child, as the part at that time was not tender and there was no evidence of discomfort.

The condition remained unchanged until about one week before being brought to the hospital when the mother noticed that the testicle was rapidly growing larger, it being tender to the touch and the child being disinclined to play; and on reclining kept his legs well apart.

On account of the acute inflammatory reaction, it was deemed advisable to undertake surgical procedure, and under general anaesthesia incision was made. In the tunica vaginalis, 3 fly larvae were found together with an acute inflammatory exudate. Following the surgical operation the patient recovered and, up to the present writing, has given no further history of a recurrence.

The larvae were submitted to Maj. James F. Coupal, Curator of the Army Medical Museum at Washington, who transmitted the following statement from Mr. C .T. Green of the Department of Entomology, Washington, D. C.—"Hypoderma, species? second stage larva, too young to identify species. Belongs to the Bot fly which sometimes attacks man, making large carbuncles." The mature larva is one and one-half inches long, or more and at least one-half-inch in thickness, covered with chaetae or spines, so that each segment is outlined by them.

In looking up the literature on this subject, there is recorded a number of invasions of this type of larva reported in this country and abroad, all of which have a similarity in their clinical course. To better understand the invasion, it is necessary to consider the life history of the Ox Bot fly, therefore, we quote rather freely from a bulletin issued by the division of Entomology.

The Ox Bot fly is quite common throughout the entire United States there being two varieties, one the Hypoderma Bovis which is common in northern and western United States; and the Hypoderma Lineata which occurs more frequently in the Southern and Western sections. This latter fly is commonly spoken of as the Heel Fly because of its peculiar desire to lay its eggs on the hair around the hocks of the animal and on its flanks. This fly does not sting or bite the animal, yet cattle are particularly afraid of them by instinct and in an effort to escape them, will stand in shallow water during the middle of the day. The eggs are attached to the hair in rows of 5 to 10, which no doubt you have seen as little yellow structures on the hairs of cattle and while they may be present anywhere on the body, the usual location is on the flanks and on the hair around the heels.

When the cattle lick themselves, the young larvae are taken into the mouth, as,

*Read before the Louisiana State Medical Society. Opelousas, April 21-24, 1924.

under pressure and moisture, the egg readily splits at its anterior end and releases the young larva, which is already well developed when the egg is laid. Doubtless quite frequently the eggs with the contained larvae are taken with the hair in this licking, but in either event the larva in leaving the egg is armed with many minute spines, which permit it to adhere to and to penetrate the walls of the esophagus. Here it soon molts and takes on the second or smooth stage, which for eight or nine months wanders slowly in the tissues of its host. The slow movement and the little nourishment taken reduce the inflammation and irritation to a minimum; in fact, the most remarkable thing in the life-history of this larva is the long period of latency and the slight development that takes place during the summer and autumn months. During the late winter the larva reaches a point beneath the skin in the region of the back and penetrates the skin, anal end first as Dr. Curtice believes, and as seems most probable. Here it molts a second time and reassumes its spinous character, producing more or less inflammation and developing rapidly with its enlarged spiracles fitted for more perfect breathing. The third molt soon follows, and we get the more strongly spined grub, with its still larger spiracles, which lives in the swellings or sacs so well known to stockmen. It finally works its way out, drops to the ground, which it enters, and where it contracts, hardens and darkens in color. In a few weeks afterward the perfect fly issues." Infection of cattle by this larvae is known as Warbles.

It is during the second stage of this development that the larva shows ability to change its position and to wander throughout the tissues of the body, during which time it may puncture any of the organs and tissues of the host. While we are most interested in the distribution and invasion of this organism in the human being, we should not loose sight of the vast economic damage to the cattle industry which it produces, particularly in the damage of the hide which it punctures and through which it escapes into the soil.

During its wanderings the larva may invade many important organs, such as the case we are reporting. Other writers have described their entrance into the anterior chamber of the eye with the destruction of that organ and they have been found in the spinal canal, having made their entrance through the intervertebral spaces. It is their desire to get to the skin and therefore, most of the recorded cases have their localization under the skin with the formation of a carbuncle like structure, through which the larva finally escapes.

As an illustration of their ability to wander, we will site a case in which a small boy felt under the skin below the knee, a tender spot which in 24 hours had changed its position to one above the knee; it continued to move, transversing the thigh, over the abdomen, the side of the neck to the top of the head, back down behind the ear and was finally removed under the chin. There are many instances in which they have first appeared in an extremity and before migrating very far, have been removed by excision.

Our case is of most interest because of the fact that it had invaded the tunica vaginalis, that three of these larvae were together and that so far there has been no other larva found in the patient. It is our belief that the child became infected by drinking milk into which hair holding these larvae fell. The larva became free in the esophagus or alimentary tract and began their migration into the tissues.

This infection must be differentiated from larva migrans which is an extremely minute organism and never forms a large tumor like mass (carbuncle). It also must be distinguished from *dermatobia* which is always stationary and gives a history of a sting by a fly.

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DISCUSSION

Dr. Elizabeth Bass (New Orleans): This paper has certainly brought up a very important subject, although it is one we think very little about in connection with human infection. Looking up the literature I was very much interested to read an article by Surcouf, a man who has studied this infection especially, and he says that his belief is, after studying many cases, that infection is probably by way of the mosquito—that the fly deposits eggs in a glue or cement-like substance on the leaves of certain plants. A particular type of mosquito seek this material and being vicious biters carry the infection to man. He says, also, that on further observation he believes that instead of the eggs being deposited on the leaves of plants the mosquito in some way attacks the mother fly and deposits her eggs on it. This is borne out by the fact that these eggs apparently become attached only to this particular mosquito and are attached in a constant manner with the hatching end outward.

I am reminded of a case I had a couple of years ago in which the doctor sent a number of fly larvae for identification. He stated that two children in the same family were taken suddenly ill with severe cramps, nausea, vomiting and high fever, one of the children having convulsions and both passed larvae. Some months before the physician had seen the same children suffering in a similar way which he diagnosed and treated as ptomaine poisoning. The mother stated that the children passed "maggots" at this time. In the second attack she noticed the same kind of "worms" as she termed the larvae. The doctor was able to collect specimens under suitable conditions to exclude any outside infection. The infection in this instance was in all probability through contaminated food.

Many of us have no doubt seen the burrowing type of infection due to the screw-worm or blue-bottle fly larvae. This mucid fly deposits from 200 to 300 eggs in wounds and orrifices having offensive discharges, as nose, ears, etc. Most of the men are also familiar with the type of infection that causes "wolves" in calves and other lower animals.

I would like to ask the essayist what would be the explanation of three larvae passing through the entire area of the body and all becoming located in the same region? Is it not possible that the parts were slightly inflamed and a local infection occurred instead of being carried in the milk to the tissues?

Dr. J. A. Lanford (closing): Doctor Bass has indicated quite well the extent to which larval infection of all varieties may be found in human beings. The object of my paper was largely to bring that fact to the profession, particularly as so many of them see this type of infection and are puzzled for a time as to the real facts.

It is interesting to consider the life history of the various insects about us and particularly important to know the different methods they have of attacking animals and human beings in fulfilling their life cycle. Some of the insects lay their eggs in material taken in with the food or drink, a common example of these is the horse bot fly (Gastrophilus equi), a stage in the development of this insect taking place within the stomach of the horse. The ox-bot fly, however, so deposits its eggs that they gain access to the alimentary tract of the animal, usually cattle, but the stage of their life cycle in the body of the animal is spent in migrating from the eosophagus to a position within the skin of the back of the animal.

However, there is a type of fly larval infection (Dermatobia hominis) that we see in tropical and semi-tropical climates in which the larvae gains access into the animal through the bite of an insect. This larva lives at the site of its original focus, therefore, is not migratory, and its growth and development takes place in the structures of the skin and subcutaneous tissues, forming a large carbuncle like mass having a small opening in the center for breathing purposes.

However, I am unable to explain why we should find three larvae of the hypoderma lineata in the same location in this patient and none in other parts of the body. Yet, despite this unusual feature, there seems to be no doubt of the fact that the larvae are properly identified and must have gained entrance into the system of the patient through the food or drink, possibly the milk that was fed the baby.

DIAGNOSIS AND SURGICAL TREATMENT OF CONGENITAL HYPERTROPHIC PYLORIC STENOSIS WITH REPORT OF CASES*

THOS. B. SELLERS, M. D.
NEW ORLEANS.

George Armstrong of London described a case of hypertrophic pyloric stenosis as early as 1777. This shows that it is not a new disease.

My reasons for presenting this paper are (1) to call attention to the fact that possibly some cases of hypertrophic pyloric stenosis are either not recognized or recognized too late to give the benefit of surgery or medical treatment, and (2) to report two cases especially emphasizing treatment and points of surgical technique.

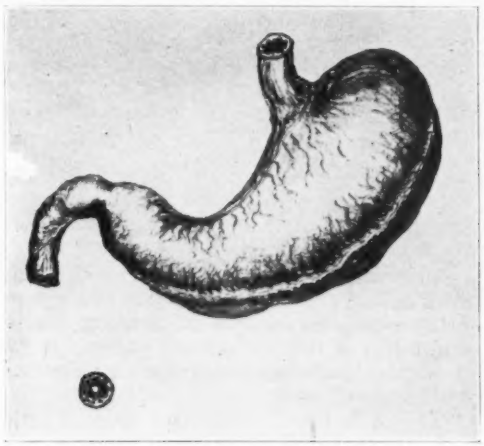

Fig. 1; Normal pylorus

were not operated on I judge that the physical condition was such, when they were admitted to the hospital, that the pediatri-

To substantiate my first point: The records at Charity Hospital, New Orleans, show six cases of pyloric stenosis handled. Five were not operated on, all of which died, one was operated on and was cured. From the history of the five cases which cian thought they would not stand operative interference. These six cases were recorded during the past twelve years in the Charity Hospital.

The Touro Infirmary records show five cases including the two I am reporting. Four of these were operated on and cured,

*Read before the Louisiana State Medical Society. Opelousas, April 21-24, 1924.

the other one was not operated on and died. These five cases were recorded during the past six years in Touro Infirmary.

Compare these figures with the record of Dr. Downes, who operated on 175 cases in 1920 and with that of Dr. Deaver, who operated on fifty-eight cases in the same

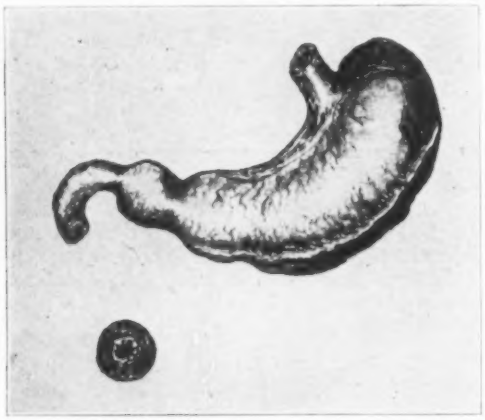

Fig. 2 Shows thickening of pylorus in hypertrophic pyloric stenosis

year; also the record of Dr. Rosenhaupt who reports one case of pyloric stenosis in every fifty babies, or 2 per cent, and that of Dr. Hertz who reports 2.7 per cent.

Congenital pyloric stenosis, or as sometimes called, expulsive vomiting, is a disease entity which is capable of causing loss of infant life if not recognized early. It has an almost pathognomoic sign and symptom complex, viz.

(1) A sudden, apparently causeless projectile vomiting starts about the third week of life, usually in breast fed children.

(2) There is a rapid loss of weight, mucous membrane and skin are dry, fontanels are often sunken in.

(3) The stomach can be readily outlined by a series of peristaltic waves which start at the left costal arch and pass diagonally to the right mammary line, apparently bombarding the pylorus; this is especially marked just after the ingestion of food.

(4) Often a tumor mass can be felt in the region of the pylorus.

(5) Constipation is usually marked; the constipation is not of a character to be confused with intestinal obstruction.

(6) Variot states that radiographic examination is the best single evidence of pyloric stenosis, but where the x-ray is not accessible there is no reason for a diagnosis not being made, as the clinical picture is unique and a diagnosis can readily be made solely from observation in the majority of cases.

Pylorospasm and hypertonicity of infants are two conditions that might be confounded with pyloric stenosis. However, both of these can be relieved by the administration of comparatively large doses of atropin.

There is a difference of opinion as to when a case of hypertrophic pyloric stenosis becomes surgical. The statistics given above from Charity Hospital and Touro Infirmary records convince one that all border line cases should be handled surgically. Downs and others report that the mortality of cases handled medically is 10 to 50 per cent and of those handled surgically, in selected cases, 2 per cent. J. W. Emmett says that when a baby loses 20 per cent of its body weight, surgical treatment should be sought.

The cases that I am reporting were diagnosed and treated medically by Dr. W. W. Butterworth.

Case 1: Martha H., white, 9 weeks; full term normal delivery, first child, breast fed. Weight at birth, 9 lbs. Started vomiting at beginning of second week but regurgitated only a small portion of meal. This gradually grew worse; by the fourth week the vomiting was pronounced and projectile in character, in spite of diet and medical treatment. Various foods mixed with lime water were tried, also thick gruel as recommended by Sauer. Tincture of bella donna, sodium bromid, sodium citrate, codein sulphate and asafoetida all tried at different times. Gastric lavage with water, temperature 110 F., three times in 24 hours, gave most promising results at first. Bowels moved only with the assistance of enemas or purgatives. Patient lost weight rapidly.

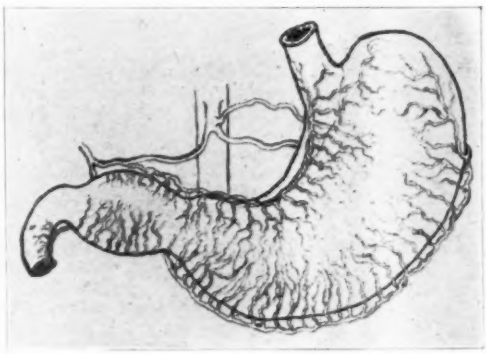

Fig. 3: Bloodless area where incision should be made

Was admitted to Touro Infirmary Jan. 8, 1923. Poorly developed, poorly nourished, weight 5 lbs. 9 oz. Skin, mucous membrane dry, fontanel sunken in, reflexes normal, temperature 99 3-5. Abdomen soft; small movable tumor mass palpable in upper right quadrant. Peristaltic wave very pronounced, running from the left costal arch diagonally to right mid mammary line. Extremities negative.

Preparation for Operation: Patient was nourished at regular intervals until 4 a.m. with the idea of getting in all liquids possible. 150 cc. saline solution was given by hypodermoclysis at 6 a.m. Stomach washed out thoroughly with warm saline solution just before operation. Extremities were well wrapped, and she was sent to operating room in warm blanket and placed on electric pad. Light ether anesthetic was given, 1-4 per cent novocaine was injected along line of incision. Of course the field of operation was prepared in the usual way.

Operative Procedure: A high right rectus about 1 1-2 inches long was made. The pylorus was delivered and the intestines were screened off with small gauze packs. A typical Rammstedt operation was performed as follows: A longitudinal incision was made through the bloodless area, beginning at the duodenal end and extending well up to the stomach, cutting only through the serosa, completing the incision to the mucosa with the handle of the knife, releasing all fibers so that the mucosa pouted into the gap. All bleeding points were ligated. The abdomen was closed, using three through and through silk worm retention sutures. No. 2 chromic catgut was used for peritoneum and fascia and plain catgut for the skin.

Post-Operative Treatment: The child was returned to a warm room awake and in good condition. Proctoclysis of 2 1-2 per cent sodium bicarbonate and glucose, also 100 c.c. of saline by hypodermoclysis were given very slowly. The temperature of each was 110 F. Morphine and sodium bromide were ordered for restlessness. Warm water and Hart's Elixir and a weak condensed milk formula were given with medicine dropper about two hours after the operation.

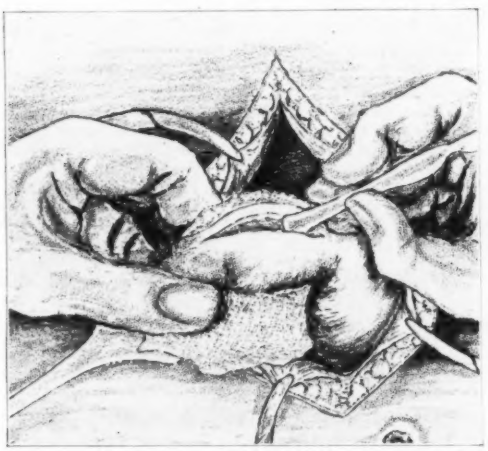

Fig. 4:Use of the handle of knife after incising the serosa

This was kept up during the day, and in the evening we started giving 50 per cent mother's milk. The strength of the mother's milk was increased until the end of the second day, then whole milk was given. The temperature ran to 103 the first post-operative day, 102 the second, 101 the third and 99 the fourth. After this the temperature was normal. Patient did not vomit after the second day. On the sixth post-operative day the wound was dressed. There was no infection and apparently the wound had healed by first intention. I left orders that she could be moved to her home. The silk-worm sutures were not removed. Just before leaving the hospital the resident surgeon called me on account of slight oozing from the wound. He changed the dressing and phoned that the oozing was insignificant. An hour later the nurse at the home phoned me that

Fig. 5: Leon two days before operation

the dressing was again stained with blood. When I removed the dressing I found a knuckle of the bowel bulging through the wound between the silk-worm sutures. The patient was sent back to the hospital. General anesthetic was given, field of operation prepared in the usual way. On inspection of the wound I found that the catgut had been absorbed. The three silk-worm sutures were removed and the wound was then closed with through and through silk-worm very close together. No. 2 chromic catgut was used for the peritoneum and fascia, and silk for the skin. The following day the temperature ran up to 103 3-5, but her condition was good. Temperature rapidly returned to normal and she was discharged from the hospital again, permanently cured.

Case 2.—Leon H., white, seven weeks; full term normal delivery, fourth child, never breast fed. Weight at birth, 12 lbs. Started vomiting at end of first week. Was sent to Dr. W. W. Butterworth the fourth week and the vomiting and loss of weight persisted regardless of medical treatment and diet, as described in Martha H.'s case. Bowels were regular. Admitted to Touro June 28, 1923, for operation. Weight 7 lbs. 4 oz. Tall, well developed but poorly nourished. Skin and mucuous membrane dry, fontanel very much depressed, heart and lungs negative. Abdomen soft and symmetrical. Small tumor mass palpable in upper right quadrant of abdomen. Extremities negative, reflexes normal, genitals normal except

adherent prepuce. Peristaltic wave very pronounced after ingestion of food.

Pre-operative treatment and operative procedure practically same as in case of Martha H., except in closure of abdomen. In this case, I used through and through silk-worm sutures much closer together. Recovery uneventful. Did not vomit after operation. Discharged from hospital on July 6, 1923, cured.

Fig. 6: Leon six months after operation

It is interesting, also unusual, to note that this patient was not breast fed and that his bowels moved regularly without a purgative.

In performing this operation of hypertrophic pyloric stenosis, it is important that it be done quickly and that all bleeding should be checked, as these infants cannot stand loss of blood. Also, too much stress cannot be laid on having an expert anesthetist, to give a light ether anesthetic.

I wish to thank Mr. W. T. Sheeley for the drawings used for the lantern slides, and Mr. J. O. Lisenby for looking up the hospital records.

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DISCUSSION

Dr. Daniel N. Silverman (New Orleans): We cannot separate this condition that we see in infancy from some analogous conditions that we see in adults. I had occasion to see and to attempt treatment of one of these cases mentioned by Dr. Sellers, in consultation with Dr. Charles Bloom. This child had lost considerable weight, and on X-Ray examination we found that the stomach did not empty immediately, but within one hour two-thirds of the stomach was completely emptied. We attempted treatment of this case, Dr. Bloom thinking it was not a good surgical risk at the time, by the use of the duodenal tube. We were able, after 48 hours, to pass the duodenal tube into the second portion of the duodenum and feed the child in this manner over a period of three weeks. But, in spite of the fact that no food was allowed to remain in the stomach, there was spasm of the pylorus, and continuous regurgitation and vomiting of mucous.

We do not have a clinical entity of pyloric stenosis but we have an associated intestinal disturbance with the stomach condition, because all the organs of the gastrointestinal tract are more or less dependent upon each other. This child was not relieved until we resorted to surgery.

Dr. Thos. B. Sellers (closing): There are two other points I would like to emphasize: Dr. McGuire, of Richmond, Virginia, says: since the profession's attention has been called to pyloric stenosis, the number of operative cases has steadily increased in that vicinity. He believes many cases are not recognized. Often border-line cases that are treated medically do not develop physically—therefore—are susceptible to disease.

I want to thank Drs. Parham and DeBuys for their assistance in handling these cases.

GLUCOSE AND INSULIN IN THE TREATMENT OF SHOCK

WALTER EDMOND LEVY, M. D.
and
HENRY MACHECA, M. D.
NEW ORLEANS

Mrs. G. F. B., age 26. Family history and past history irrelevant. One child 2 years ago. Labor and puerperium normal.

P. I. Patient gives a rather indefinite account of a midwife procedure, occurring about one month ago. She had missed two periods up to the time she went to the midwife. According to her husband, she began losing freely about four days ago (Feb. 14), passing, as he says, about 30 clots a day.

P. E. The patient is a well developed, but undernourished female. She is semi-conscious and

very anemic-looking. Her skin is cold, and beads of perspiration stand out over her entire body. Her teeth are clenched, and her face has an anxious expression. Physical examination negative, except for the above description. On admission, at 9:30 p.m., her temperature was 97.6, pulse 140, respiration 24. Active bleeding from vagina.

We reached the patient at 10 p.m., and found her in a very precarious condition. Her systolic B. P. was then 75 mm., and her pulse was 152 and very weak. The patient was removed to the ward treatment room, and her cervix and vagina were packed, and 1-2 c.c. of pituitrin given. No operative procedure was attempted due to the condition of the patient.

The patient was then given 700 c.c. of a 5 per cent glucose in her vein in order to tide her over while we were seeking a donor for a transfusion.

At 11 p.m., a suitable donor having been found, she was given 250 c.c. citrated blood.

Foot of bed elevated 12 inches, and external heat applied. Shortly afterwards, the patient started to vomit; but from 1 a.m. until 4 a.m., she rested quietly.

At 4 a.m. she again complained of nausea, was very restless, and had a pulse of 152, very weak and irregular. No more vaginal discharge.

At 8 a.m., she was given 700 c.c. of 5 per cent glucose by hypodermoclysis. During the entire day she was very restless and vomited a great deal. Blood pressure dropped to 70 mm. She was given various stimulants by needle.

During the afternoon she became very much worse, with shallow breathing, etc., the very picture of impending death from shock.

It was then that the report of a recently catherized specimen of urine showed acid reaction and acetone +++. As she was getting glucose by hypodermoclysis at the time, we gave her 5 units of insulin. This was repeated in about 30 minutes.

In the meantime we were preparing to give glucose and insulin by vein, and from 4:30 p.m. until 6 p.m. she received 500 c.c. of a 10 per cent glucose with 20 units of insulin.

At 9:30 p.m. an intravenous drip of saline was started, the patient receiving 3,000 c.c. after 5 hours.

At midnight, the patient showed no more acetone in a catherized specimen of urine, or in frequent subsequent specimens.

From this time on, there has been no more vomiting, her pulse began to increase in volume, and became moderately slow and regular. She was able to retain increasing amounts of fluid, gruels and cereal. The patient remained in the hospital for ten days. When discharged, she was on full diet with no nausea or vomiting, and fully recovered in every respect, except for a slight anemia.

The above case, in our opinion, is a remarkable one, in as much as it illustrates the value of glucose and insulin in combating that which is commonly called shock.

Here we have a patient with practically every one of the classic symptoms of shock, viz: A person in shock is usually found in a state of complete muscular relaxation and if movements are made, they are feeble and irregular. The face is pale and drawn, the pupils dilated, sweating is often profuse, the reflexes are slight, consciousness is usually present, but there is a diminished sensibility and mental activity. The respirations are feeble, irregular and sighing. The pulse is small, frequent and dicrotic, owing to the low blood pressure. The skin is cold and the temperature subnormal, plus vomiting and acetone bodies in the urine.

Let us for a moment consider Yandil Henderson's Theory of Shock: Acapnia, or deficiency in CO_2, removes a most important stimulus from different nerve centers. The breathing becomes shallow and occasional, the blood pressure falls and the heart beats more rapidly. The objections to this theory are many, chief among which is the fact that shock should then be prevented by artificially supplying CO_2, which is not the case.

Now let us consider that which is called acidosis; according to Victor Myers: The term acidosis, although originally coined by Naunyn to apply to the ketosis of diabetes, has come to be used in a much broader sense with the development of our knowledge of this subject.

A number of different criteria have been suggested as a measure of the degree of acidosis: (1) lowered carbon dioxide combining power or content of the blood; (2) lowered alveolar carbon dioxide tension (3) decreased affinity of hemoglobin for oxygen; (4) reduced alkalinity of the blood (Sellard's test); (5) increased hydrogen-ion concentration of the blood; (6) increased intensity of urinary acidity (hydrogen-ion concentration), and (7) the retention of alkali by the body in cases in which the kidney is capable of rapidly excreting an excess of alkali. Yandell Henderson has also suggested the very simple test of holding the breath.

Shock has been defined as a condition in which the systolic pressure remains below eighty.

The protection of the body from a dangerous change toward acidulation of the blood, lies in the sodium bi-carbonate of the plasma. The Van Slyke method of determining the plasma bi-carbonate, offers a simple means of ascertaining whether non-volatile acid has been unduly developed, and by uniting with the sodium and driving off the CO_2, has diminished this "buffer salt."

The normal is 50 to 55 volumes per cent.

Cannon in 47 determinations of CO_2 capacity, in cases of very low blood pressure, shows the following:

No. of Cases.	C O_2 Capacity
7.....	50—59 (average 53)
26.....	40—49 (average 44)
8.....	30—39 (average 35)
6.....	20—29 (average 24)

From the above, Cannon says, it is clear that though acidosis is not necessarily present in conditions clinically diagnosed as shock, in the majority of instances, it does exist and may be extreme.

The most striking lesson to be learned from this case, is the fact that in insulin we have a valuable adjunct to our medical armamentarium other than its value in the treatment of diabetes.

A careful study of the case report will show that no marked change for the better was noted until the administration of the insulin, in spite of a large intravenous infusion of glucose followed by a transfusion, and this in turn followed by glucose by hypodermoclysis. No change in the low blood pressure or relief from the vomiting and acetonuria was noted until the administration of the insulin.

Just how the insulin acted in the particular case cited, is not quite clear. Its action was, perhaps, twofold: (1), In permitting the entire consumption by the body of the glucose (as shown by the absence of sugar and acetone in the urine shortly afterwards), thereby combatting the acidosis, and (2), as has been suggested, it enabled the body to hold fluids, which otherwise would have been excreted by the kidneys, due to their stimulation by free glucose.

From a study of clinical symptoms of this case, and the result, do not the two seem to be strikingly similar? We are told that a state of acidosis is the result of starvation, that the carbon-dioxide reserve of the body is diminished, etc. We are likewise told by Henderson that shock is due to a loss of CO_2, and by Cannon, that an acidosis is present in a large majority of cases of very low blood pressure presisting over a period of time. Rather a striking similarity, we should say.

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FEEDING PROBLEMS OF THE FIRST MONTH*

C. J. BLOOM, M. D.
NEW ORLEANS

The general practitioner in his daily routine realizes his limited time is inadequate to review the medical literature concerned with the voluminous subject matter of the feeding problems of infants and children.

*Read before the Louisiana State Medical Society, Opelousas, April 22-24, 1924.

So many changes have been made; so many "fads and fancies" introduced, and so many text books printed, that one finds it rather difficult to select "just what is the correct procedure in the handling of these cases."

This paper includes the deduction made after twelve years of intensive study, and is the plan adopted by the writer in his private and hospital practice at this time.

The Newly Born Record

When possible make a complete examination of the newly born infant on the day of its birth. Copies of said record are herein reproduced. Charts Nos. 2 and 3. Pay special attention to the daily weighing of the infant for the first fourteen days.

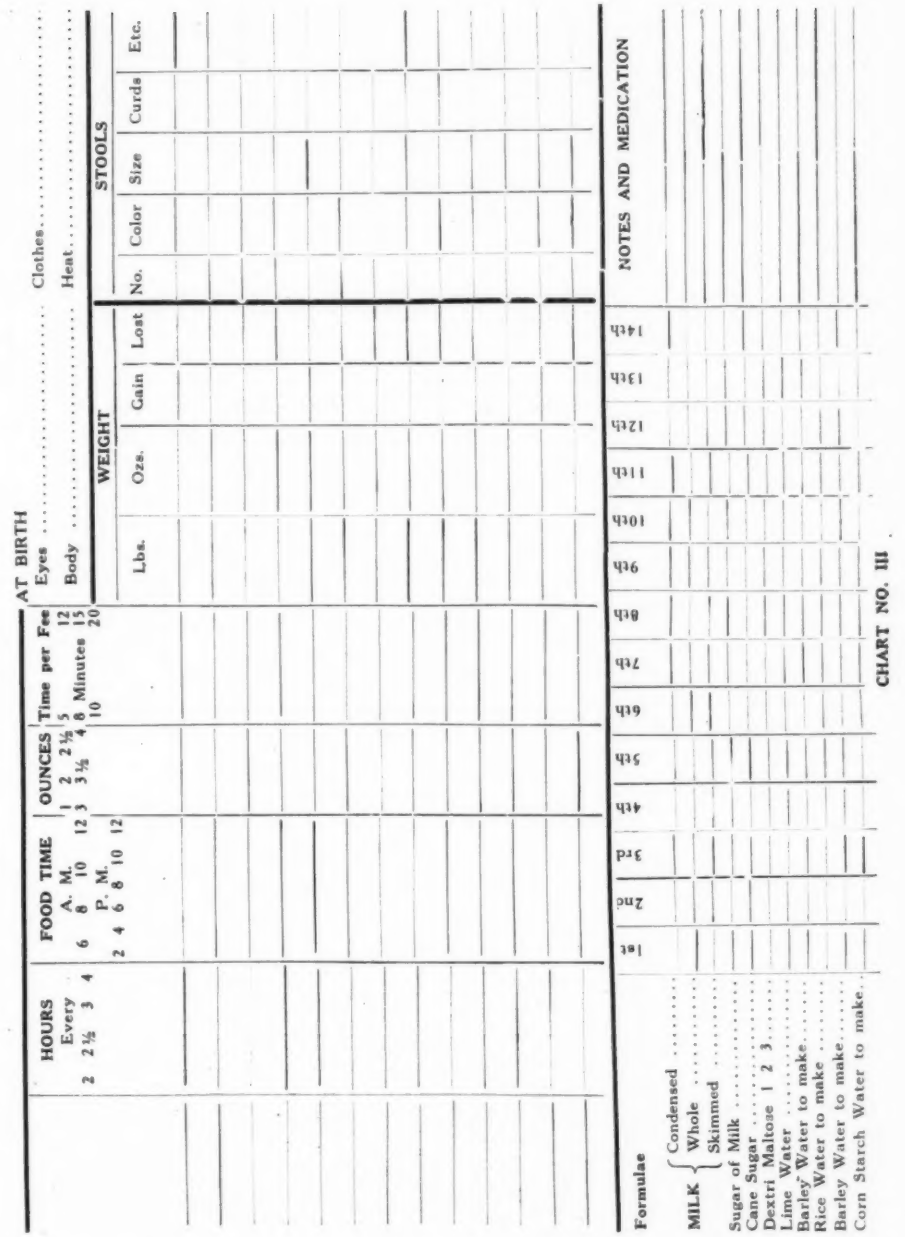
Methodical Feeding

Rules and Regulations

In the past, students of Pediatrics have been taught that in the physical development of an infant, it is quite common for every newly born infant to exhibit an initial loss in weight during the first week of its life, and providing the amount does not exceed ten percent of its birth weight to consider same as normal; the birth weight being regained by the fourteenth day.

Believing this statement was incorrect and feeling that even though there may be many causes producing such a marked loss in weight—has led me to observe the included cases as described in detail in Table No. 1. After the birth of the infant, many clinicians have no definite routine concerning the time of feeding nor to the relative number of minutes per feeding. This matter is left to the discretion of the child, who remains unfed until such a time as his fretfulness and crying will warrant the attention of all concerned. For this reason methodical feeding-rules and regulations have always been paramount with me in the care and feeding of the newly born. The baby is put to the breast every four hours during the first twenty four hours; every three hours during the second day; every two and one-half hours between six a.m. and nine p.m. and twice during the night between nine p.m. and six a.m. during the third day; and every two hours during the day from six a.m. to ten p.m. and once during the night from ten p.m. until six a.m. during the first month.

There are a few exceptions that would alter this feeding plan; namely, (1) an abundant supply of milk, rich in constituents in the case of a very small baby;


AT BIRTH
Clothes
Heat
Eyes
Body
HOURS Every 2 2½ 3 4
FOOD TIME A. M. 6 8 10 12 P. M. 2 4 6 8 10 12
OUNCES 1 2 3 2½ 3½ 4 5 6 8 10
Time per Fee 12 15 20 Minutes
WEIGHT Lbs. Ozs. Gain Lost
STOOLS No. Color Size Curds Etc.
NOTES AND MEDICATION
1st 2nd 3rd 4th 5th 6th 7th 8th 9th 10th 11th 12th 13th 14th
Formulae
MILK Condensed Whole Skimmed
Sugar of Milk
Cane Sugar
Dextri Maltose 1 2 3
Lime Water
Barley Water to make
Rice Water to make
Barley Water to make
Corn Starch Water to make
CHART NO. III

(2) an abundant supply of milk with limited constituents in the case of a baby with a very small capacity; (3) in the case of the average child receiving an average milk, but exhibiting signs of over-feeding. The number of minutes allowed per feeding during the first day is five; second day, eight; third day, ten; and from the fourth day to the end of the first month, from twelve to twenty minutes, according to indication. If the amount of breast milk is limited, the infant is allowed to nurse from both breasts at each feeding, *providing the breasts are thoroughly emptied in this space of time;* otherwise the breasts are alternated. The time allowed per feeding, should never exceed thirty minutes, not more than twenty minutes in actual time.

NEWLY BORN RECORD

No..... NAME .....Sex..... Obstetrician .....

Date and Hour of Birth.....First Examination ..... [MOTHER..... [FATHER.....

Term [Full..... [Premature..... Delivery: (a) Normal.....(b) Caesarian .....(c) Instrumental .....

Physical Examination

Length of Body .....
Length of Legs .....

Head
- Circumference .....
- Anterior Fontanelle .....
- Sutures .....
- Abnormalities .....
- Face..... Neck .....

Chest
- Circumference .....
- Objective .....
- Physical .....

Abdomen
- Circumference and Organs .....
- General .....

Extremities .....
.....
Sexual Organs .....
Cyanosis .....
Cord: Dropped..... Discharge.....

Family
- Tuberculosis .... Lues.....
- Questionable Symptoms .....

1st day .....
2nd day .....
3rd day .....
4th day .....
5th day .....
6th day .....
7th day .....
8th day .....
9th day .....
10th day .....
11th day .....
12th day .....
13th day .....
14th day .....

Mother:
(1) General Health .....
(2) Breasts .....Nipples .....
(3) Bowels .....

Diet: ..**Omit**—Tea, Excessive Sweets and Coffee, Canteloupe, Watermelon, Bananas, Grapes, Cauliflower, Plantans, Cabbage, Red and White Beans, Cucumbers, Tomatoes, Sweet Potatoes and .....

CHART NO. II

The succeeding feedings must be given at a specified time from the beginning of the preceding feeding.

In this series the so-called initial loss or Post Natal loss of weight curve has been replaced by an increase in weight on the tenth day. *Average weight first day seven pounds four ounces; average weight third day seven pounds one-half ounces; average weight seventh day seven pounds three ounces and tenth day seven pounds five ounces.* Note that the maximum loss of weight was three and one half ounces, or less than one per cent of its birth weight.

The Post Natal loss of weight in infants is attributable to lack of or no nourishment

and it is particularly noted in excessively large children and it is more marked during the colder than during the warmer months of the year. Mechanical shock during delivery and excessive loss of heat due to improper clothing and lack of attention are other factors influencing this initial loss.

This series of one hundred thirty-six cases, consisted of seventy-two males and sixty-four females. Seventy-four cases or fifty-four and one-half per cent, gained by the tenth day; fifty cases or thirty-six and five-tenths per cent showed an appreciable loss by the tenth day, and 12 cases remained stationary in weight during the same period of time. By the fourteenth day, ninety-four or sixty-nine per cent had exhibited an increase in weight; therefore, only thirty-one per cent of the total number of cases showed a loss at the end of fourteen days. A rather significant deduction—twenty-three cases or sixteen per cent gained consistently through the tenth day.

These cases were all born in free service of the Touro Infirmary during the years of 1918-1920, and received the attention of ward nurses alone. From the above, it is evident that the short interval of feeding is the method of choice.

In order to understand the food requirements of the newly born, a few introductory remarks relative to metabolism are now discussed.

Computed Metabolism

The energy quotient as applied by Heubner is the number of large calories per kilogram of body weight that are necessary for daily growth. The fact that analysis of breast milk varies within wide limits necessarily influences a corresponding fluctuation in its caloric values. The following are the computed energy quotients as accepted by different authorities:

Heubner allows 100 calories per kilogram (2.2 pounds);
Schlosman, 110 calories;
Feer from 86 to 104 calories;
Krammer, 50 plus calories;
Siegert, 80 calories;
Czerny and Keller, 70 calories;
Oppenheimer, from 111 to 142 calories.

Beck gives the following figure as an average energy quotient to breast fed infants, one to twelve weeks, 107 calories.

Therefore—with a given gastric capacity of one and one-half to three ounces knowing the number of feedings received, and computing the calories per ounce of milk, as per Fraley's Formula 2. Fat plus Protein plus carbohydrate times 1 1-4 equals amount of calories ($2F + C + P \times 1{:}4$)—also the number of calories required by a given infant in twenty-four hours—all will tend to prove that the short interval of feeding is practical, feasible and the forerunner of a well trained and well nourished child and a contented mother.

1. Metabolism of infants after taking food, is always higher than it is in the same infant while fasting.[1] Experimentally, this brings the additional proof that insufficient food reduces the carbondioxid excretion. (Howland).

2. After eighteen hours of fasting, acetone soon appears in the urine in a considerable amount; therefore it appears that in such an infant the finding of acetone *should be considered abnormal.* (Schlossmann and Murschhauser).

This perhaps explains the inanition or starvation fever so often noted in apparently healthy children—more often in the case of large infants—where a few days after birth (second to sixth as a rule) with negative findings, the child will develop high fever—sometimes reaching 106 degrees Fahrenheit—an associated restlessness and a crying infant might aid in the diagnosis of this clinical entity. *Do not purge freely and do not starve—food is wanting.*

Complement your breast feedings with from one-half to two ounces of the following mixtures in the strength of five per cent.

Dextrose	3.739	Calories
Lactose	3.737	
Saccharose	3.957	

A Few Practical Suggestions.

1. The best method of hastening the return of the milk in a mother is by emptying the breast as completely as possible. Many a mother has discontinued the breast as a means of feeding her young one because the attempt was given up at a time when the milk was late in appearing or else the quantity was absent. The so-called running in or milk day, is generally the third—at times it goes beyond this period and in a few instances, appears before said time. By the plan mentioned in the previous paragraph, the writer believes that the running in period can be shortened and that the amount of milk can be increased to such an extent that the so-called initial loss weight in curve will be eliminated entirely.

2. Treat the mother as well as the child—in the former let it be psychological, whereas in the latter, medical. Encourage the fact that she will nurse her child and do not permit of her weaning the child unless any of the accepted reasons for weaning

are apparent. Restrict her diet, as per memoranda of The Newly Born Record, and limit her purgatives to the mineral oils. Particularly stress the necessity of exercise and mental diversion, and also the detailed care of the breasts.

3. Do not acclimate the infant to numerous drugs and drastic purgatives even though the movements temporarily may be many and constituents abnormal. Allow nature to adjust the one to the other.

4. If vomiting is a prominent symptom, think of the following:

(a) Too much; (b) Too often; (c) Too quick; (d) Too strong and (e) Pressure on the abdomen.

5. The amount of milk received per feeding can be estimated by the difference of weight obtained by weighing before and after feeding. An early morning and a late evening feeding will give you an average amount received at these respective times.

6. Remember that periodical crying, principally in the late afternoon and night is one of the signs of underfeeding and not colic. The other signs are stationary weight, constipation and restlessness.

Conclusions

1. By following the precedent of placing the infant to the breast from the first day, etc., the so-called Post Natal Loss Curve can be obviated.

2. By calculation and metabolic findings—the short interval of feedings is the method of choice. The infant is better satisfied, the gain is more appreciable, the habits are better formed and the baby better developed, and the mother—more contented.

No. of Patient	Birth Weight	Weight at end of Third Day	Weight at end of Seventh Day	Weight at end of Tenth Day	Weight Lost – or gained * in Ounces at end of Tenth Day	Birth Weight Retained Throughout Tenth Day	Birth Weight Regained on Day	Sex (Male=M.; Female=F.)
	lb. oz.	lb. oz.	lb. oz.	lb. oz.	Ounces			
1	6-8	6-8	6-3	6-3¾	*¾	No	10th	M
2	7-7	7-7	7-11	7-11	*4	No	5th	F
3	6-4½	6-5	6-5	6-10	*5½	Yes	6th	F
4	7-14	7-6	7-12	8-0	*2	No	10th	F
5	7-5	7-5½	7-8	7-14	*9	Yes	...	M
6	7-5	7-2	7-2	7-10	*5	No	7th	M
7	6-14	7-6	7-13	8-4	*6	Yes	...	M
8	8-12	8-1	8-10	8-10½	–1½	No	10th	F
9	6-9	6-7	6-11	6-11	*2	No	7th	M
10	6-14	6-13	6-13	7-2½	*4½	No	8th	M
11	6-12	6-12	6-13	6-13	*1	Yes	...	F
12	9-0	8-15	9-4	9-4	*4	Yes	...	M
13	5-12	5-13	6-2	6-8	*12	Yes	...	M
14	7-0	7-0	7-¾	8-0	*16	Yes	...	F
15	5-0	4-14	4-12	5	–	No	10th	F
16	9-4	9-3	9-6	9-6	*2	No	8th	M
17	6-6	6-0	6-6	6-8	*2	No	7th	F
18	9-4	9-3	9-5	9-6	*2	No	4th	M
19	7-12	7-11	7-11	7-12	–	No	8th	M
20	6-0	6-0	6-7	6-7½	*7½	Yes	...	F
21	10-3	10-8	11-0	11-3½	*16½	Yes	...	M
22	7-12	7-9	8-8	8-10	*14	No	5th	M
23	9-4	9-6½	9-8	9-14	*10	Yes	...	F
24	8-14	8-15½	8-14	8-15½	*1½	Yes	...	F
25	7-5	7-3½	7-6	7-6	*1	No	7th	M
26	10-6	10-5½	10-6	10-6	..	No	7th	M
27	6-2	6-0	6-7	6-7	*5	No	4th	F
28	7-11	7-10½	7-10	7-11½	*½	No	9th	M
29	8-0	8-2	8-2½	8-3½	*3½	Yes	...	M
30	7-1¾	7-2	7-4½	7-6	*4¼	Yes	...	F
31	6-8	6-0	6-8	6-12	*4	No	6th	F
32	6-8	6-0	7-0	7-0	*8	No	6th	F
33	8-6	8-4	8-5	8-6	..	No	8th	M
34	4-5	4-4	4-5	4-8	*3	No	7th	M
35	8-5	8-4	8-6	8-6	*1	No	6th	F
36	9-4	9-5½	9-2	9-6½	*2½	No	10th	M
37	7-12	7-12	7-12½	7-13	*1	No	6th	F
38	5-14	5-13	6-8	6-6¾	*8¾	Yes	...	F
39	8-2	8-1	8-3	8-5	*3	No	5th	M

No of Patient	Birth Weight	Weight at end of Third Day	Weight at end of Seventh Day	Weight at end of Tenth Day	Weight lost – or gained * in Ounces at end of Tenth Day	Birth Weight Retained Throughout Tenth Day	Birth Weight Regained on Day	Sex (Male=M.; Female=F.)
	lb. oz.	lb. oz.	lb. oz.	lb. oz.	Ounces			
40	6-14	6-13	6-15	6-15	*1	No	4th	F
41	7-14	7-10	8-0	8-0	*2	No	5th	M
42	6-7½	6-8	6-11	6-11	*3½	Yes	...	F
43	7-8	7-10	7-9	7-4	–4	No	11th	F
44	6-4	6-3	6-5	6-5	*1	No	6th	M
45	8-8	8-7	8-10	8-10	*2	No	5th	M
46	8-5	8-6½	8-4½	8-5½	*½	No	8th	M
47	8-11½	8-10½	8-10½	8-12	*½	No	8th	M
48	6-1	5-10	6-0	6-2	*1	No	8th	F
49	6-8	5-12	6-4	7-0	*8	No	8th	M
50	7-8	7-8	7-7	7-7	–1	No	X	M
51	7-2	7-2	7-2	7-3	*1	Yes	...	F
52	6-12	6-13	6-14	6-14	*2	Yes	...	M
53	9-1	9-1	9-2	9-2	*1	Yes	...	F
54	5-12	5-12	5-13	5-13	*1	Yes	...	F
55	6-3	5-3½	5-5	5-5	*2	Yes	...	F
56	7-2	7-2½	7-3	7-3½	*1½	Yes	...	M
57	7-12	7-2	7-6½	7-7½	*4¾	No	X	M
58	7-7	7-2½	7-8	7-9	*2	No	7th	F
59	6-0	5-15½	6-15	6-15½	*15½	No	5th	F
60	8-3	8-5	8-7	8-8¼	*5¼	Yes	...	M
61	6-7	6-6½	6-11	6-12	*5	Yes	...	F
62	6-6	6-6	6-9	6-12½	*6½	Yes	...	F
63	8-14	8-12¼	8-14½	9-6	*8	No	6th	M
64	6-4	6-0	6-6½	7-2	*14	No	5th	F
65	8-0	7-12	8-4	8-5	*5	No	5th	F
66	7-6	7-3	7-12	8-5	*15	No	6th	M
67	6-7	6-5	6-5	6-8	*1	No	9th	M
68	8-2¾	7-12	8-4	8-7¼	*4½	No	7th	M
69	8-4	7-12¾	8-4½	8-4	..	No	7th	F
70	6-6	5-13½	6-7½	6-12	*6	No	6th	F
71	8-9	8-2	8-4	8-11	*2	No	9th	F
72	5-7	5-0	5-10	5-10	*3	No	6th	F
73	8-7	7-14	7-14	8-2¼	–4¾	No	X	F
74	6-2	5-10	5-14	6-2	..	No	10th	M
75	9-0	8-11¼	9-3	9-2	*2	No	7th	M
76	8-8	7-14	8-6	8-10	*2	No	8th	F
77	10-0	9-11	9-9	9-11	–5	No	X	M
78	7-2	6-6	7-1½	7-2	..	No	10th	M
79	7-0	6-6	6-8	7-0	..	No	10th	M
80	7-11	7-5	7-8	7-12	*2	No	10th	F
81	7-0	6-10	7-2	7-11	*11	No	6th	F
82	8-3¼	7-6	8-9	8-14½	*10¼	No	5th	M
83	8-6	8-2	8-6	8-10	*10	No	7th	M
84	7-0	6-13	6-6½	7-0	..	No	9th	M
85	7-12	7-9½	7-5	7-12	..	No	10th	M
86	7-10	7-5	7-15	7-12¾	*2¾	No	7th	M
87	7-9	6-8	6-8	6-14½	–4½	No	X	F
88	7-12½	7-1¾	7-2	7-8½	–4	No	11th	F
89	9-8	9-2	8-14	9-5	**-3**	**No**	**11th**	**M**
90	9-3	8-5½	8-13	9-3¼	*¼	No	10th	M
91	9-8	9-2	8-14	9-5	–3	No	11th	M
92	7-7	6-12	6-12	7-4	–3	No	12th	F
93	7-0	6-10	7-3	7-4	*9	No	4th	M
94	8-11½	8-2	8-12½	8-12½	*1	No	7th	M
95	9-7½	9-0	9-3	9-4	–3½	No	10th	M
96	7-12	7-10	7-8	8-2	*6	No	8th	M
97	5-9	4-14	5-5	5-9½	–½	No	9th	F
98	6-12	6-8	6-7	6-15	*3	No	10th	F
99	7-8	7-4½	7-7½	7-7	–1	No	11th	F
100	6-12	6-10	6-10	6-8	–4	No	X	F
101	8-15	8-5	9-0	8-15	..	No	11th	M
102	6-11	6-9	6-6	6-7	–4	No	X	F
103	5-13½	5-12	5-13	5-12	–1	No	8th	M
104	6-11	6-9	6-8	6-8	–3	No	X	F

No of Patient	Birth Weight	Weight at end of Third Day	Weight at end of Seventh Day	Weight at end of Tenth Day	Weight lost – or gained + in Ounces at end of Tenth Day	Birth Weight Retained Throughout Tenth Day	Birth Weight Regained on Day	Female=F.) Sex (Male=M.;
	lb. oz.	lb. oz.	lb. oz.	lb. oz.	Ounces			
105	6-13	6-8½	6-10	6-12	–1	No	11th	M
106	8-12	8-10	8-2	8-5	–7	No	X	M
107	8-10	8-0	8-8	8-10	. .	No	9th	F
108	6-14	6-12	6-6	6-6¾	–7¼	No	X	M
109	6-10¾	6-12	6-10	6-10	–¾	No	11th	M
110	5-2½	5-2	4-9	4-5	–17½	No	X	M
111	7-0	6-13	6-10	6-11	–5	No	X	M
112	7-5	6-9	6-14	6-13	–8	No	X	F
113	6-11	6-10	6-9	6-5	–6	No	X	F
114	7-11½	7-11½	7-10	7-9	–2½	No	X	F
115	8-5	8-5	8-3	8-2	–3	No	X	M
116	6-13	6-12	6-10	6-7	–6	No	X	M
117	7-14	7-13	7-11	7-10	–4	No	X	M
118	7-9	7-8	7-6	7-5	–4	No	X	F
119	4-13	4-12	4-11	4-11	–2	No	X	F
120	8-8	8-7	8-5	8-4	–4	No	X	M
121	7-8	7-1½	7-3	7-5	–3	No	X	M
122	7-8	7-4	7-6	7-7½	–½	No	11th	M
123	4-15	4-12½	4-10	4-12½	–2½	No	12th	M
124	7-10	7-9	7-8	7-6	–4	No	X	M
125	6-8	6-7	6-4	6-2½	–5½	No	X	M
126	6-3	5-14	5-13½	5-14	–5	No	X	F
127	9-0	8-5	8-6	8-6	–10	No	X	F
128	7-8	7-9	7-4	7-5	–3	No	X	M
129	6-14	6-8	6-6	6-10	–4	No	X	F
130	6-5	6-2	6-2	6-2	–3	No	X	F
131	7-13	7-5	7-2	7-6	–7	No	X	F
132	8-3	7-10½	8-0	8-2	–1	No	14th	M
133	9-4	9-0	8-13	9-0	–4	No	14th	M
134	7-10	7-0	7-13	6-14½	–11½	No	X	F
135	7-8	6-14	6-8	6-9	–15	No	X	F
136	7-1½	6-6	6-6	6-9½	–8	No	X	F

(X)=Beyond limit of fourteen days.

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CIVILIZATION AND AMERICAN MEDICINE

A malignant attack upon American medicine has been made by an anonymous doctor in a book entitled "Civilization in the United States."

Of the author of this attack it is said. "As an American physician he has gained distinction in the field of medical research, but for obvious reasons desires to have his name withheld."

After one has read the chapter it is easy to see the reasons he has withheld his name.

It is hard to believe that anyone who knows the least bit about the part played by the American physician can have written the statements "From time immemorial the doctor has been an object of respect and awe by the generality of mankind. In spite of his pretension to scientific attainment, many vestiges of his former priesthood remain, and this melange of scientist and priest has produced curious contradictions and absurdities."

He based his idea of the combination of scientist and priest on the fact that the physician lends a helping hand in an effort to raise a human brother from the depths of physical degradation to the heights of happiness through physical well-being.

Since we cannot agree with him that this form of priesthood is beneath the dignity of the doctor we may dismiss that particular criticism. He has probably not felt the need of uplift in the presence of the ravages of disease and death in his own family.

In a recent address by Edmunds of Johns Hopkins University, the statement was made that the object of a university was to teach, to do research and to serve.

Knowledge of the past history of the American physician is proof to all that service has been his motto.

Wistar of Philadelphia, a great anatomist served so well that a great research institution bears witness to his priesthood of service.

Has the American physician contributed to our civilization by following the precepts of Hippocrates so recently reasserted by Dr. Edmunds in his conception of a modern university to teach, to search and to serve, or is the criticism of this anonymous Doctor justified "A survey of the present condition of American medical education offers little hope for a higher intellectual status of the medical profession or of any fundamental tendency to turn medicine as a whole from a melange of religious ritual, more or less accurate folk-lore, and commercial cunning toward the rarer heights of the applied sciences."

This anonymous doctor being an American must labor under the impression that the mass intelligence which has permitted our country to rise to its present outstanding position has contributed only the substratum of intelligence to the medical profession. Why then has this intellectually dwarfed group been able to follow progressive steps made in other countries? Is this all due to commercial cunning? It cannot be folk-lore.

Is anesthesia a contribution to civilization? Webster says "Civilization applies to human society, and designates an advanced state of material and social well being."

With this definition before us we cannot fail to appreciate that Crawford W. Long an obscure Georgia physician by utilizing ether in 1842 for surgical purposes made a distinct contribution to civilization.

Was that folk-lore? Was it commercial cunning?

Morton, a dentist, of Boston, first used

Ether in 1846 on a patient operated at Mass. Gen. Hospital by Dr. J. C. Warren. Dr. Warren said "You have seen something that will go around the world."

Will the untold thousands operated since that time deny the civilizing effect of the physician in this instance?

Without Pasteur, (French) Lister, (English) and Long and Morton (American) surgery would not be today what it is; and yet an anonymous gentlemen hurls unwarranted stigmatizing calumnies at our profession.

The world waited for Oliver Wendell Holmes, to coin the terms anesthesia and anesthetic.

Has American civilization suffered because of the lethargy of the profession since the initial work of Long and Morton? What has our distinguished critic to say of the work of Gwathmey and later the original research of Luckhardt which has given the world Ethylene, the latest and to date the safest anesthetic.

In the Hall of fame of Gynecology the American surgeons form a conspicuous group.

In spite of the "commercial cunning" thrust we look with pride upon the achievement of Ephraim McDowell, hailed by all "the Father of Ovariotomy."

Oliver Wendell Holmes wrote in answer to an invitation to be present at the dedication of the McDowell Monument: "Among the births of the century this (ovariotomy) is a twin with myself. I thank God that the other twin will long outlive me and my memory, carrying the light of life into the shadows of impending doom, the message of hope into the dark realm of despair; opening the prison to them that are bound and giving them beauty for ashes, the beauty of a new-born existence even of youthful maternity in place of the ashes for which the inevitable urn seemed already waiting. I am glad that this great achievement is to be thus publicly claimed for American surgery."

In the Frauenklinik in Berlin, there is only one ornament in the amphitheatre and that is a medallion of McDowell.

What effect this contribution has had on civilization we look to our esteemed critic for an answer. The balance of the world has already answered.

J. Marion Sims, Emmet and Kelly following in the foot-steps of the immortal Ephraim McDowell have contributed to the comfort and well-being of woman-kind sufficient to justify their place among immortals of the world.

It is generally admitted that our own esteemed colleague Professor Rudolph Matas has contributed to the advancement of vascular surgery more than anyone for centuries. The most malicious would not consider this in the light that this anonymous critic has spoken. The work of Matas will stand as an everlasting monument to American genius.

The late Dr. Halsted has left his impression on civilization not only through his work in this field, but in the development of modern aseptic technic.

Can it be said that it is not a distinct civilizing influence when the disciples of great leaders like Halsted, Matas, Murphy and Coley, inspired by their teachings, influence the thought and lives of so many in this and other lands.

Brophy, Villary Blair, Davis and Thompson of Galveston, in the field of plastic surgery have contributed real advances to human knowledge.

Scarlet fever we hope will loose its terrors through the efforts of the Doctors Dick.

The plasmodium of malaria has been cultivated by Bass.

Yellow fever has almost become extinct through the work of Reed, Carroll and Lazar.

Gorgas, an American physician was able through the application of sanitation to make possible the construction of the Panama Canal. Had foreign money and brain failed to accomplish the same feat?

Men could not live on the Canal Zone until a modest, sincere, intellectual giant in the person of an American physician applied scientific sanitation. Was that folklore or ritual?

Flexner has produced poliomyelitis experimentally.

Crile, through his laboratory work, has given the world the foundation stone on which has been built our present conception of shock. Whatever differences in opinion have arisen since his original enunciation it is to the credit of American medicine that the idea originated in the brain of an American doctor.

Henderson, Seelig, Cannon, Ewing and many others have contributed along this line.

The research laboratories of the Rockefeller Institute, Johns Hopkins University, Tulane and many other similar institutions

bear witness that the statements of the critic are unworthy of publication.

Are our research laboratories adding daily to our knowledge ? Are our great institutions such as the American College of Surgeons adding to our civilization? Is it "commercial cunning" which encourages men to work to bring comfort where pain and suffering are entrenched?

Publishers should be encouraged to have material analyzed that their publication will reflect credit on them.

Our critic would do well to consider Studley's comment "People who lead busy lives never find to have hysterics."

SOME RECENT MEDICAL PROGRESS

It seems that work on scarlet fever—real valuable, practical work—by Dick and Dick and by Dochez and others, has occupied the center of the stage in medical investigation for the past year or more and it may truly be written down as the best advance in medical progress for 1924. Work on the definite streptococcus, making of the tests, successful immunization and, now, claims of a practical and successful serum, analogous to the anti-diptheritic, followed in such quick succession, the announcements of which almost made one dizzy.

Now comes Prof. Collip, of the University of Alberta, Ontario, Canada, one of the men who assisted Banting in perfecting insulin; he has isolated a definite hormone from the parathyroids, which is effective only by needle (like insulin) and which causes immediate cessation of tetany in para-thyroidectomized dogs; this hormone has been found to have a wonderful effect on the calcium metabolism in the body; we do not know as yet just what we may expect but we predict that, before another year passes, this will be perfected and its use will supplant that of the unknown-value, variable and indefinite parathyroid preparations for use, by mouth—just as insulin has supplanted the use of pancreatic hormones (so-called) for oral administration. Some of the diseases in which it may prove of incalculable value are: asthma, hayfever, tetany, sprue, pernicious anemia, pellagra.

With these advances fresh in mind, we may truly ask: "What next?"

THE LATIN-AMERICAN VISITORS

During the latter half of March the state had the pleasure of entertaining ten representatives of public health activities from the South American countries and Mexico. The members of this group are:

Dr. Pedro de Alba Alvarez, Professor of Clinical Therapeutics, Military Medical School, Mexico.

Dr. Rafael Alvarez, Physician and Surgeon, Bacteriologist of the National Laboratory of Cuba.

Dr. Andres Gubetich, Delegate to the Seventh Pan-American Sanitary Conference, Paraguay.

Dr. Carlos R. Larde-Arthes, Chief of the Section of Public Health of Salvador and Professor of Pathology of the National University of Salvador.

Dr. L. Garcia Maldonado, Member of the Faculty of Medicine of Caracas, Venezuela.

Dr. Emygdio Jose de Mattos, Medical Officer of Health, Brazil.

Dr. Nunez, Delegate to the International Interchange, Costa Rica.

Dr. Rafael Schiaffino, Adjunct Professor of Hygiene, Uraguay.

Dr. Juan Francisco Valega, Delegate to the International Interchange, Peru.

Dr. Alberto Zwanck, Associate Professor of Hygiene of the Faculty of Medicine, Buenos Aires, Argentine Republic.

These distinguished gentlemen are Delegates from their countries and are traveling under the auspices of the League of Nations. Dr. Louis Destouches of the National Committee of the League is in charge of the party.

They are especially interested in the various methods of malaria control, in Sanitation work, in the care of the sick and in Child Hygiene.

The first state to be visited in this country was Louisiana. While here their interests were centered in the control work being carried on at Patterson, in the model dairies and in the methods employed for inspecting milk, food, fruit, meat. They visited the Leprosarium at Carville and also a number of cities inclusive of Shreveport throughout the state.

From Louisiana the party left for Mississippi with the intention of observing closely the full time county health organization. They apparently went from Mississippi to Alabama where the State Health Officer will demonstrate the work done in malaria, typhoid fever and hookworm control.

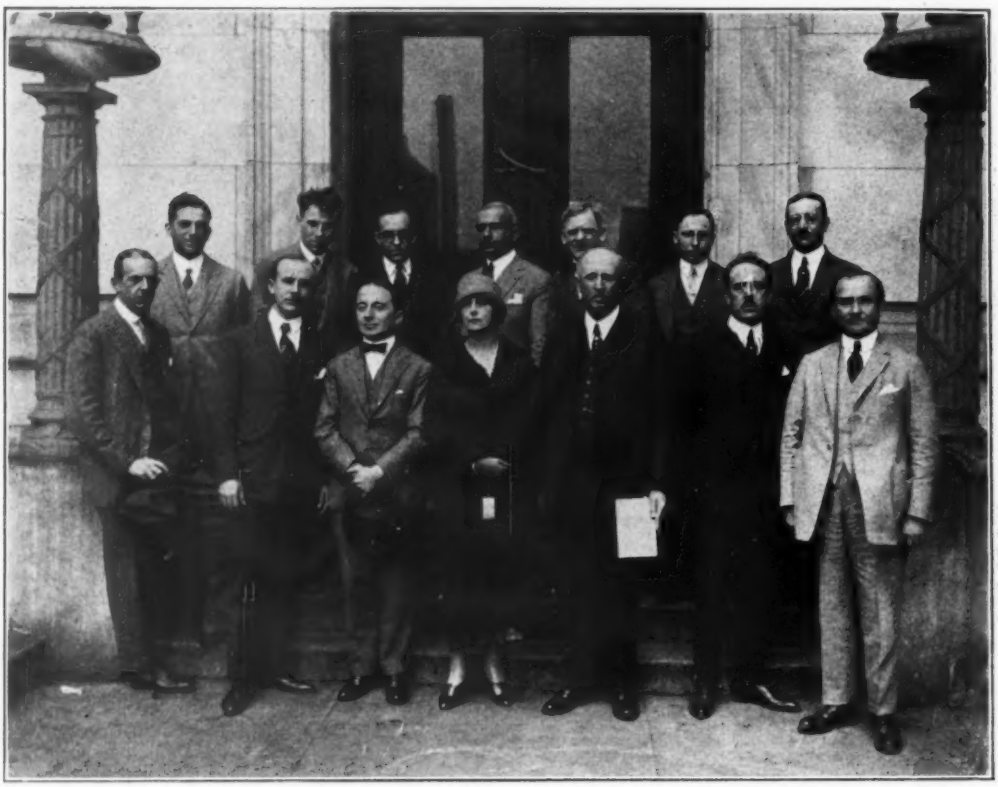
Washington is expected to be the next objective. Here they will be welcomed by Surgeon-General Cumming and under his

direction will be introduced to the complications of federal health administration.

The party will also visit Baltimore and they expect to spend ten days in New York city. Here again they will devote their time to the study of municipal sanitation, laboratory methods, hospitals and the activities of the federal government in the regulation of quarantine and immigration at Rosebank and Ellis Island.

It is understood that after visiting the principal points in the United States, the doctors will also investigate and study the methods by which the Canadian authorities regulate their health problems. It is probable that from Canada they will visit the European countries before returning to their respective occupations.

There is no question but what this interchange idea of the League of Nations is an excellent one. It brings about a better understanding between the countries. The hospitality which has been shown these men will not be forgotten and the information which they will derive from the study of our institutions will go far toward clarifying the misconceptions which we have of their ways of living and their misunderstanding of our ways of existence. This may not occur with one visit, probably not with several, but in any event it will pave the way toward amicable relations both of



THE SANITARY INTERCHANGE OF CENTRAL AND SOUTH AMERICAN HEALTH OFFICIALS UNDER THE AUSPICES OF THE LEAGUE OF NATIONS

Photograph taken in New Orelans, March 20th, 1925.

Reading from left to right, rear row: Dr. L. Garcia Maldonado, Physician-Surgeon of the Faculty of Caracas, Venezuela; Dr. Louis Destouches, League of Nations, Geneva; Dr. Rafael Alvarez, Bacteriologist of National Laboratory, Havana, Cuba; Dr. Emygdio Jose deMattos, Sanitary Inspector, National Department of Rio de Janeiro, Brazil; Dr. Francis H. McCrudder, Medical Staff of the New England Life, Massachusetts; Mr. J. H. O'Neill, Sanitary Engineer, Louisiana State Board of Health; Dr. Pedro de Alba, Professor of Therapeutical Medical Clinic, Military Medical School & Hospital, Mexico City. Front row: Dr. Alberto Zwanck, Medical Officer of Health, Buenos Aires, Argentine Republic; Dr. Carlos R. Larde-Arthes, Chief of Bureau of General Direction of Public Health, San Salvador, El Salvador; Dr. Juan Francisco Valega, Chief, Practical Work, Faculty of Medicine, Lima, Peru; Mrs. Angelita Galvez de Zwanck, Buenos Aires, Argentine Republic; Dr. Oscar Dowling, President, Louisiana State Board of Health; Dr. Rafael Schiaffino, Professor of the Faculty of Medicine of Montevideo, Uruguay; Dr. Andres Gubetich, Professor of the Faculty of Medicine of Asuncion, Paraguay.

a political as well as of a commercial kind which will redound to the benefit of both the United States as well as her Latin American neighbors.

DR. WILLIAM J. MAYO

In the forenoon of Tuesday, April 7, the Miles Amphitheatre of the Charity Hospital was crowded to full capacity with the medical student body of the Tulane University and the members of the Visiting Staff and other visitors who had assembled to hear a lecture by Dr. William J. Mayo. The eminent surgeon was greeted with the warm and enthusiastic welcome which is accorded him whenever he makes his appearance in New Orleans.

Dr. Mayo responded in his usual happy vein to the fittingly complimentary remarks of Dr. Matas, who in his introduction referred to the great achievements of "Dr. Will," as he is affectionately known to his friends, and to the Mayo Foundation at Rochester as "the greatest and most unique human repair shop on earth—the pride of America and the envy of the outside world." Dr. Mayo's discourse dealt most interestingly and instructively with the more recent contributions of biochemistry and physiology to the problems of nutrition and metabolism, as they related to the preparation of surgical patients, and safeguarding them before, during and after operations in toxic states, who, without such preparation and after care, would incur the gravest risks. He referred especially to the changed attitude of the surgeon in the presence of diabetic patients, who were no longer denied the benefits of surgery since the advent of Iletin and the better knowledge of the dietetic measures that are utilized to counteract the dangers of acidosis. He referred to the still greater danger of alkalosis in other conditions; to the progress accomplished in the treatment of the biliary toxemias of jaundiced patients; to the hemophilic and purpuric risks, all of which had been immensely benefited by the recent advances in biochemistry and the physio-pathology of the blood and the blood making organs. In all of this he displayed an intimate acquaintance with the latest acquisitions of contemporary scientific research in the chemistry of nutrition and metabolism that spoke eloquently for the culture, versatility and breadth of view of the lecturer and of the modern surgeon, who is no longer satisfied with the pure manual accomplishments of his art, but who seeks and finds, in every forward step of the collateral and ancillary sciences, the material for the attainment of his life saving mission.

LOUISIANA STATE MEDICAL SOCIETY

*Presidential Address**

Dr. C. V. Unsworth, New Orleans

Medical Conventions like meetings of other professions and callings are primarily intended as gatherings where an accounting of achievements or failures may be had.

It is customary in medical meetings that subjects of a more or less technical nature, only relatively interesting, and sometimes, indeed, boring to lay persons are discussed.

On account of the great mission of the medical profession in preventive medicine and the great interest that the public has shown in this branch it has become a fixed policy with medical organizations to have a meeting such as this to which the public is invited.

There are many reasons for this policy. The non-sectarian and open minded character of our profession makes it desirable that the public be in its confidence in return for the support and confidence that the people have always reposed in it.

This is a situation to be much desired, and having been obtained, to be dearly cherished, for after all, is not the public co-operation an evidence of the public's acknowledgment of a confidence begotten from a duty well done?

In these times, when a somewhat altered sense of public and private conscience has made easier the straying from beaten paths, especially when they are straight and narnow, there have arrived in our social system some rather distorted concepts of what constitutes success in life.

The opportunity for rapid accumulation of wealth by somewhat easy though not always safe methods has lured many a weak citizen to destruction, in his frantic grasping for what he hoped meant success.

Gold, throughout the history of the world, has always been an almost irresistable magnet which has drawn into its cold embrace the vapid individual who hoped to find in its tempting sheen the warmth of happy success.

Passion, the love of power, hatred and revenge have furnished the Will o' the Wisp to many actors in the play of life and they have reached the last act bitterly disappointed at the lack of the world's applause and dreadfully apprehensive of the judgment of the Great Censor beyond.

Indeed, if one would judge rather hastily at the apparent objectives of most of our fellow men, of all kinds and creeds, one would be indeed in a quandary to answer the questions—what are they driving at? What constitutes, in their minds, success?

Success is measured by different standards and is subject to different definitions. Social prestige, political preferment, financial affluence, religious contentment, any or all, may be the measures that are used for judgment and—after all—success—as far as personal impressions go, is a relative term.

In large gatherings or even in communities, an uninfluenced popular vote for the most successful citizen might be productive of peculiar results. Jack Dempsey would probably defeat Gen. Pershing. Peggy Joyce would no doubt defeat Evangeline Booth. Pasteur, Reed and Lazear would probably not even be considered successes, —for did not their work hasten their ends, and were they not poor in worldly goods?

In medicine, as I have intimated by my last references, the gauges of success must be somewhat different, lest we all be failures.

Hippocrates, the worthy descendent of Aesculapius, has said in the "Law" of Standard of Requirements for a Doctor, that "whosoever is to acquire a competent knowledge of medicine, ought to be possessed of the following advantages: a natural disposition; instruction; a favorable position for the study; early tuition; love of labor; leisure. First of all, a natural talent is required; for, when Nature opposes, everything else is in vain; but when Nature leads the way to what is most excellent, instruction in the art takes place, which the student must try to appropriate to himself by reflection, becoming an early pupil in a place well adapted for instruction. He must also bring to the task a love of labor and perseverence, so that the instruction taking root may bring forth proper and abundant fruits.

Instruction in medicine is like the culture of the productions of the earth. For our natural disposition is, as it were, the soil; the tenets of our teacher are, as it were, the seed; instruction in youth is like the planting of the seed in the ground at the proper season; the place where the instruc-

*Delivered before the Louisiana State Medical Society, New Orleans, April 21, 1925.

tion is communicated is like the food imparted to vegetables by the atmosphere; diligent study is like the cultivation of the fields; and it is time which imparts strength to all things and brings them to maturity.

Having brought all these requisites to the study of medicine, and having acquired a true knowledge of it, we shall thus, in traveling through the cities, be esteemed physicians not only in name but in reality. But inexperience is a bad treasure, and a bad fund to those who possess it, whether in opinion or reality, being devoid of self-reliance and contentedness, and the nurse both of timidity and audacity. For timidity betrays a want of powers, and audacity a want of skill. There are, indeed, two things, knowledge and opinion, of which the one makes it a possessor really to know, and the other to be ignorant."

A doctor who has fulfilled these requirements and preserved these tenets can, we believe, be called successful. If wealth and immediate earthly plaudits are to be the gauges of success, then Pasteur, one of the greatest benefactors of the human race, in a physical way, and Jesus of Nazareth, the greatest benefactor, in a spiritual way, could not have been called successful—and yet, today, all creeds and all races acknowledge reventially the Divine blessings their existences brought to human kind.

We must judge of success from a higher and nobler standard than the mere accumulation of wealth or the acquiring of temporal power, if the medical profession is to be raised from the stigma of failure. For the medical man on the average is far from wealthy and seldom seeks power. His work is fashioned and must be carried on as the great Nazarene has taught. He must feel that "the spirit of the Lord is upon" him. "To preach deliverance to the captives and sight to the blind, to set at liberty them that are bruised." He must follow the spirit of the Great Physician and when he has honestly done this, then, in the judgment of our profession, he is successful.

He may be sick and poor, and we believe him successful—for was not Pasteur such? He may be a crusader, and be met by unbelievers, and yet we know he is a success—for was not Jenner such? He may die obscurely and no tumult result from his death and yet we know he was a success—for did not Rickett do so?

My friends,—in medicine, the cardinal rule is the Golden Rule, and medicine is of necessity a calling to a life of self abnegation and a devotion to duty and ideals, and when one of our number carries on earnestly, zealously and is completely imbued with the ideals which we have inherited from Hippocrates, he is, indeed, a success.

We cannot all be Galens, Pares, Pasteurs, Listers, Reeds or Murphys, but we can carry on with all that is in us and be successes.

The humblest country practitioner or city family practitioner may be, indeed, "a gem of finest ray serene," and mean more in the way of individual success, in the true sense, than the greatest and most heralded group of widely advertised surgeons in the world. Opportunity for fame may never come but we must remember that "they also serve, who stand and wait."

As Carl Schurz has beautifully penned it, "Ideals are like stars; you will not succeed in touching them with your hands, but like the sea-faring man on the desert of waters, you may choose them as your guide, and following them reach your destiny," —and be successful.

MISSISSIPPI STATE MEDICAL ASSOCIATION

Program of Annual Meeting

Tuesday, May 12, 8 a. m. Crown Theatre, Meeting of Council and House of Delegates. Subsequent meetings will be arranged by the House.

Tuesday, May 12, 9:30 a. m.; 12 m.; 1:30 p. m.; 6 p. m., Crown Theatre.

Opening Exercises
Section on Eye, Ear, Nose and Throat

1. Malignancy of the Naso-pharynx—D. C. Montgomery, Greenville.
2. General Diseases in which Aural Complications are Prone to Occur—N. S. Dickson, Columbus.

Section on Medicine

1. The Effects and Treatment of Constipation and its Relation to So-called Intestinal Autointoxication—James S. McLester, Birmingham.
2. The Infants' Pylorus: Spasm and Stenosis—F. G. Riley, Meridian.
3. Conclusions from the Correlation of Laboratory Findings, Clinical Symptoms and End-Results—L. L. Lippincott, Vicksburg.
4. Endarteritis Obliterans: Report and Demonstration of a Case—Louis W. Webb, New Orleans.
5. The Digestive System in Tuberculosis—W. A. Tommer, Sanitorium.
6. Blood Transfusion—A. C. Bryan, Meridian.
7. Hematuria—W. G. Kiger, Eaglebend.
8. Some Observations of the Diseases of the Chest in Children—Noel C. Womack, Jackson.
9. Focal Infection—S. E. Eason, New Albany.
10. Prostatitis: Its Relation to Focal Infection—H. W. E. Walther, New Orleans.
11. Focal Infection in the Dental Tissues—J. N. C. Moffat, D. D. S., Clarksdale.
12. The Relation of the Physician to Life Insurance—J. O. Segura, Jackson.
13. Pituitrin in Obstetrics—E. H. Linfield, Gulfport.
14. Non-Tuberculous Diseases of the Chest; with Lantern Slides—W. F. Henderson, Jackson.
15. Thymus Enlargement in Infants and Children; with Lantern Slides—Harvey F. Garrison, Jackson.
16. Physiological Effects and Therapeutic Effects of the Radio—Active Waters of the Hot Springs National Park in Arkansas in Diseases and Injuries Incident to the Military Service—Col. L. Mervin Maus, Hot Springs.
17. Insulin and Diabetes Mellitus—H. L. Rush, Meridian.
18. The Treatment of the Failing Heart—T. D. Bordeaux, Meridian.

Evening Session

Tuesday, May 12, 8 p. m. Crown Theatre.

1. Invocation—Rev. O. S. Lewis, Biloxi.
2. Addresses of Welcome:
   On behalf of the City of Biloxi—Mayor J. J. Kennedy.
   On behalf of the Harrison-Stone Medical Society—H. M. Folkes, Biloxi.
3. Response to Addresses of Welcome—Noel C. Womack, Jackson.
4. President's Address—Medical Progress and the Influence reflected on it by Organized Medicine—J. J. Haralson, Forest.
5. Annual Oration—The Abuse of Food—John B. Elliot, New Orleans.

GENERAL MEETING

Wednesday, May 13, Session 9 a. m. to 12 m.; 1:30 p. m. to 4 p. m. Crown Theatre

Section on Hygiene and Public Health

1. The Prevention of Contagious Diseases of the Respiratory Tract—J. S. Ullman, Natchez.
2. Cancer: Some of the Problems Connected with its Control—Wm. F. Wild, Field Representative, American Society for the Control of Cancer, New York.
3. Two Years Work Under the Sheppard—Towner Act—Florence E. Kraker, Associate Director, Division of Maternity and Infant Hygiene, U. S. Dept. of Labor, Washington, D. C.
4. The Rabies Problem in Mississippi—C. R. Stingily, Jackson.
5. Full Time County Health Work—C. W. Garrison, State Health Officer, Little Rock, Ark.
6. Food Protection: With especial reference to Meat, Milk, Shellfish and Fruits—Oscar Dowling, State Health Officer, New Orleans.
7. Tuberculosis in Childhood—Henry Boswell, Superintendent State Tuberculosis Sanitorium.
8. Organization and Operation of a City Health Department—J. J. Durrett, Superintendent Dept. of Health, Memphis.
9. Partnerships in Health Work—Wm. R. Medden, Medical Asst., American Red Cross, Washington, D. C.
10. The Doctor's Responsibility to Motherhood—R. M. Adams, Tupelo.
11. Major Defects of Eye, Ear, Nose and Throat, as seen by the Memphis Marine Recruiting Station—Robin Harris, Memphis.
12. A. Practical Program for a Part Time County Health Officer—W. H. Frizell, Brookhaven.

Section on Eye, Ear, Nose and Throat

9 a. m. to 1 p. m.
Hotel Avelez (Special Session)

1. Perinaud's Conjunctivitis—E. L. Posey, Jackson.
2. Intranasal Surgery; with relation to the Turbinates—Edley H. Jones, Vicksburg.
3. Infection of the Accessory Nasal Sinuses in Children—C. A. McWilliams, Gulfport.
4. A Technic for Ethmoidectomy—John R. Hume, New Orleans.
5. Thornwaldt's Disease—E. LeRoy Wilkins, Clarksdale.
6. Mastoidectomy: with special attention to local Anesthesia in this Operation—S. M. Blackshear, New Orleans.
7. "Zinc Ionization" in the Treatment of Chronic Otitis Media—C. E. Granberry, New Orleans.

8. Radical Frontal Sinus Operations, with the least Amount of Deformity—Lucien S. Gaudet, Natchez.
9. Lye Legislation—E. F. Howard, Vicksburg.

GENERAL MEETING

Thursday, May 14, Session 9 a. m. to 12 m.; 1:30 p. m. to 4 p. m. Crown Theatre.

Section on Surgery

1. Operative obstetrics—A. G. Payne, Greenville.
2. Further Discussion of Gall Bladder Surgery A. E. Gordon, Jackson.
3. A Review of a Series of Gall Bladder Operations—C. Jeff Miller, New Orleans.
4. The Treatment of Jaundice—S. H. Hairston, Meridian.
5. The Treatment of Post-Operative Infections of the Abdominal Wall—H. A. Gamble, Greenville.
6. The Chronic Appendix—Chas. T. Chamberlain, Natchez.
7. Some Conclusions in Regard to the Diagnosis and Treatment of Appendicitis—R. H. Foster, Laurel.
8. Local Anesthesia in Abdominal Surgery—Carroll W. Allen, New Orleans.
9. Some Difficulties in the Diagnosis of Early Pregnancy, from the Surgeon's Viewpoint—J. A. Crisler, Memphis.
10. Mercurochrome in Surgery—S. W. Johnston, Vicksburg.
11. Splenectomy for Certain Types of Anemia, with case report—A. Street, Vicksburg.
12. Sacral and Para-Sacral Anesthesia—E. H. Galloway, Jackson.
13. Unrecognized Pellagra a serious Surgical Handicap: report of cases—L. B. Hudson, Hattiesburg.
14. Ectopic Gestation—F. M. Sandifer, Greenwood.

WOMEN'S AUXILIARY

Riveira Hotel

Tuesday, May 12, 1925.
8 a. m.—Registration (Avelez Hotel)
3:30 p. m.—Executive Board.
Wednesday, May 13, 1925.
9:30 a. m.—Call to order and invocation.
Addresses of Welcome:
On behalf of Woman's Auxiliary of the Harrison-Stone County Medical Society—Mrs. Margaret Carraway, Gulfport.
On behalf of the City of Biloxi—Mrs. G. R. Carroll, Biloxi.
Response to Addresses of Welcome—Mrs. H. R. Shands, Jackson.
Roll Calls.
Appointment of Committees.
Reports.
Address: The Value of a Woman's Auxiliary to the County Medical Society—F. J. Underwood, Jackson.
12 m.—Adjournment.
12:30 p. m.—Reveira Hotel.
Report of Woman's Auxiliary A. M. A.—Mrs. S. Johnston, Jackson.
Report of Auxiliary Southern Medical Association—Mrs. D. J. Williams, Gulfport.
2 p. m.—Auto Drive, beginning at Reveira Hotel.
8 p. m.—Dinner-Dance—Buena Vista Hotel.
Thursday, May 14, 1925.
8:30 a. m.—Sightseeing.
10:30 a. m.—Session.
Invocation.
Reading of Minutes.
Reports.
Election of Officers.
Unfinished business.
Address—How May Woman's Auxiliaries Assist the Sanatorium—Henry Boswell, Sanatorium.
12 m.
12:30 p. m.—Luncheon.
2:00—Boat Ride.

BILOXI, THE CONVENTION CITY

By Anthony V. Ragusin

The approaching convention of the Mississippi State Medical Association at Biloxi on May 12, 13 and 14 is expected to draw the largest attendance in the history of the organization. Biloxi is noted as the convention city of Mississippi and entertains more conventions than any other community in the state. It is well known to doctors from all parts of the country, and has many attractions to offer the convention.

Biloxi is fast developing into one of the leading health and pleasure resorts of the United States and is a city of out-door sports, historic interest, romance and beauty. It is situated on a peninsula, facing the Mexican Gulf and extending to the Back Bay and the beautiful Tchouticabouffa River.

The city has recently spent near $1,000,000 in municipal improvements, including street paving, parks and playgrounds.

Biloxi is but 24 hours from the center of population of the United States. There is a fast train service to all points in the South. Two national highways run through Biloxi, the Mississippi Gulf Coast to Chicago Highway and the Old Spanish Trail.

Considerable historical interest is allotted to the city. On a February day in the year of 1699 the gallant French naval officer, d'Iberville, sailed into the Back Bay of Biloxi and planted the first capitol of the great Louisiana territory. That huge territory, extending from the Gulf of Mexico to Canada, and from the Rocky Mountains to the Mississippi River, including that little strip known as the Mississippi Coast, which later became known as the Louisiana Purchase, was first governed at Biloxi.

Even though way down on the Gulf of Mexico the French explorers came in contact with the Biloxi tribe of Indians, which was a branch of the famed Sioux Family. Biloxi, an Indian word, signifies "The First People," according to the Smithsonian Institute of Washington, D. C.

To the southward lies a chain of beautiful islands. On Ship Island, thirteen miles off Biloxi, is the famed Fort Massachusetts, which was built by the Federal forces during the Civil War. On Biloxi's West Beach Boulevard is the old Jefferson Davis home, where the president of the Confederacy spent his last days. This beautiful home is now the Mississippi Confederate Soldiers Home and over 200 veterans of the Gray are spending their last peaceful days there. On the north shore

of the Back Bay stands a granite boulder dedicated to the spot where d'Iberville landed in 1699.

The lighthouse on the West Beach Boulevard, built over seventy-seven years ago, is a bit out of the "old days." Massive oaks, paved boulevards and pretty homes flank it on one side, while on the other sparkles the waters of the Mississippi Sound. Flowers, especially roses, have no definite season in Biloxi but bloom throughout the year. The spring months find the flowers particularly beautiful. Then the Back Bay with its pretty driveway trails, is an invitation to the motorist.

The islands of the Mississippi Sound in the vicinity of Biloxi are noted for their entrancing scenery. The unusual names were given to the islands by the early French explorers under d'Iberville. They lend a touch of old-world charm to the softly blended beauty of Biloxi and her environs.

The scenery of Biloxi is unique. It is so different from that of the north that visitors quickly fall under the spell of its soft Southern charm. Benachi avenue with its famed spreading oaks is probably the only thoroughfare of its kind in America. These oaks planted over a hundred years ago, offer an unusual sight to the visitors and tourist. East Beach and West Beach Boulevards with their palms, magnolias and profuse shrubbery are among the scenic driveways of the South.

Among Biloxi's beautiful parks is the Naval Reserve, which covers 377 acres in the northwest corner of the city, bordering the Back Bay. There is a fascinating history of the gigantic moss-covered oak trees of the Naval Reserve Park. Years ago, before the steel superdreadnought of Uncle Sam's Navy came into use, the government had extensive property in various parts of the country, whereby the best grades of timber could be obtained for shipbuilding should a sudden war break out. The wood ship has to have a very strong bow-stem and keel. There is not finer or stronger wood for this purpose than the trunks of huge oak trees. With preparedness in view, the government held on to this beautiful 377-acre tract. Finally the government turned over the property to the City of Biloxi for park purposes. A portion of the park is set aside for automobile tourists and campers. Pure artesian water flows freely. A pier 1,000 feet in length extends into the Bay from the park.

All sports and other forms of athletics are enjoyed in Biloxi. Besides yachting, water sports and golf, there are baseball, football, hunting, trap shooting, tennis and other outdoor diversions.

The semi-tropical climate is the most inviting for the golfer, angler, vacationist, and tourist, or for all-the-year round residence.

MEDICAL ECONOMICS

Chas. A. Bahn, M.D., Department Editor.

PRACTICAL MEDICAL ECONOMICS

PART 9.

"How successfully to make an honest living in medical practice," is a rather important subject not taught in medical colleges.

We assume that all doctors who have a reasonable knowledge of the construction and ailments of the human body will soon find ready purchasers for their knowledge; will quickly adapt themselves to the particular field for which they are best suited; and that the just recognition which their efforts deserve from their clientele and colleagues will provide for them and theirs in more or less affluence.

In by-gone days this was probably true, but today I believe that both the regular medical profession and the public would benefit by wholesome instruction concerning what each should expect of the other. The medical profession, apparently, does not thoroughly understand that the public wants to buy from us health and happiness, insofar as the construction and function of the body is concerned, at a minimum expense of time and money.

The public does not seem to understand thoroughly that we have for sale essentially, knowledge and service, as it applies to the construction and function of the human body in health and sickness, and that we can at best make nature's repair plant function as effectively as possible; that we are neither magicians nor conjurers, that we receive no mysterious hunches, but have to work hard for our knowledge; that we have to examine people carefully to understand why their mental and physical machinery is not hitting on all six; that we can no more give magical medicines, which insure health and happiness, than we can, Pullman passes which are good in the next world; and that our big words often do not express big ideas.

Don't you think that the average layman should know that a medical education generally costs not less than six years of hard work and about ten thousand dollars in money; that medical practice is largely a one man work, and that when the doctor stops work the income stops; that the average financially active professional life of a doctor is about twenty years; that for the amount of time, money and effort invested, the practice of medicine is probably the most poorly paid of all professions excepting the ministry; that of the 700 doctors in New Orleans, there are probably not fifteen who are earning fifteen thousand dollars net yearly from the practice of medicine? If these and a few other facts were more generally known and understood many of our practical problems would solve themselves.

This lack of understanding on both sides results in our feeling that we are often taken advantage of, and do not receive a fair share of our production; while the public look upon us as a rather well meaning but impractical lot, who try to charge as much as the traffic will bear in one form or another, for what we do; and who usually go through a lot of useless red tape in passing the patient from doctor to doctor, or rush them to hospitals for operation.

A man who inherits a reasonable amount of practical business sense does not study medicine, because it does not appeal to him. The appeal is essentially to the mental type who live in a world of ideals rather than practical realities; of refined mental conceptions rather than material actualities, sometimes coarse and crude.

Six or more years in medical college where theory and the doings of the sick and the abnormal are almost exclusively taught still further reduce our prospective doctors' understanding of human beings, how they really feel, act and conduct their business transactions.

The young doctor having been thoroughly grounded in life as it is not, and taught to think in terms of a language that adapts itself easily to ambiguity, can it be wondered that he does not understand what a practical world wants to buy from him and really what he has to sell. Let us not fool ourselves, as doctors we sell knowledge and service.

Like the explorer in the jungle without a chart or compass, so is the average doctor in the jungle of finance from which he must derive his livelihood. After years of hard work with long hours he often manages to earn a fairly comfortable living, usually spending more than he is making. As he does not understand the fundamental principles of business he is the easy mark for the fake promotor of one sort or another. He buys what he does not know and usually pays for his ignorance. The re-

sult is that during his productive period he saves little or nothing because he does not understand the practical management of his production, and what he saves is often thrown away.

And then there is our code of medical ethics which is intended to stand for a square deal to the patient, the doctor, and other doctors. Among other things, we believe that it is not best for the public nor the profession that a doctor exploit himself in the lay press because such contributions do not generally express the whole truth, and give the average reader a false conception of the facts and their proper valuation. On the other hand have we not gone to the other extreme. Should we not take the attitude that truthful medical publicity, reasonably supervised, is educational? It is difficult for the lay press which rightly considers itself a public institution of learning, to get from us reliable medical information because we are taught to avoid the newspaper reporter more than the plague. The back numbers of the daily press will show however, that the names of some physicians have appeared rather more frequently than their scientific attainments seem to warrant. The young doctor hardly understands why some of his colleagues are entitled to more privileges than others. Why can we not establish a rule that every bit of medical information given to the lay press must first be approved by a fair minded committee which will promptly approve or disapprove, if possible, with constructive suggestions; all material submitted.

Let us be frank—we are all hungering for deserved publicity, because in a way it stands for success, and no one likes to be a failure. The important thing is that we learn to use medical publicity in a straightforward, truthful, way; and supervise it to the benefit of both the profession and the public.

In our medical meetings, rare cases are presented, but no attention is given to the study of the practical increase of our usefulness to those who employ us and to the possible reduction of our charges to a reasonable minimum, based on accurate facts and figures.

Our respect for the traditions of the past, with their ceremonies, shams and mysticisms, has apparently blinded us to the demands of the present, which are simplicity, practicality, frankness and square dealing.

Many cultists have gone to the other extreme. They are profiting by our mistakes and taking advantage of our unwillingness to understand the public mind. They may not know the fine points of histo-pathology, but human nature, they do know; and also how to derive the greatest possible revenue from their efforts.

There is a broad path between these two extremes in which we should progress. Our greater knowledge of the human body and its ailments enables us to render the greatest possible service if we will add to our technical knowledge a broader understanding of human beings and a desire to increase our practical and economic usefulness.

Personally, I believe that the "Holier Than Thou" attitude and "Too Proud To Fight" air belong to yesterday. We, of the regular medical profession are not 100% correct in our understanding of the human body in health and disease and, incidentally, all cultists are not 100% incorrect in their conceptions. The less we know about any given subject, the more dogmatically do we express ourselves. There is much of practical value that we may be able to learn from cultists by unprejudiced study and analysis of their ideas. On the other hand, if we as a profession really believe that our education and training enable us to conserve public health better than cultists of one sort or another, let us not be afraid nor ashamed to teach the public the truth about ourselves, not from the standpoint of trying to get a little cheap individual notoriety, but from the standpoint of creating an increased legitimate demand for medical services which we expect to meet. It has been said, however, that five doctors can not sit in the front pew of Heaven in peace and amity. This is partially true because the average doctor feels he must represent himself second to none in order to avoid an inferiority inference.

I have been told that our legal conferers have a committee before which any layman can present without cost any apparent instance in which a lawyer has been at fault either regarding the character of his services or the charge made therefor. In other words they apparently have an open court in which the public can get a square deal so far as their membership is concerned. A committee of that sort in the medical profession would serve several excellent purposes. In the first place it would teach the public that we are not closed corporation in which it is impossible to get a square deal where our membership is concerned, and in the second place it would cause those

who are so inclined, to think twice before doing anything which cannot well be exposed to the sunlight of public and professional scrutiny. Those who have nothing to hide, usually do not resent investigation especially where the good of all is concerned.

After all, it is not hard to see why, from the standpoint of the average practical thinking layman, we are considered impractical idealists, who make fish of some, fowl of others; who do not have to work very hard for the large incomes we are supposed to receive; who are a fair target for every fake promotion scheme; who are fadists in one form or another; who have a foolish set of rules called medical ethics; and who are to be dealt with more or less on the caveat emptor principle—"Let the buyer beware."

The fault is really not with the public but with us. Our professional training and caste have not kept pace with current thought. The fact that less than 20% of the thousand persons selected at random and questioned some two years ago in Chicago professed loyalty to the medical profession, that it did not employ cultists, shows how we understand what the public expects of us.

Address all communications to Dr. Chas. A. Bahn, 1551 Canal St., New Orleans, La.

New Orleans Convalescent Home

The New Orleans Convalescent Home has cared for 13,708 patients through the year 1924. The following figures show the growth and use of the work:

NUMBER OF PATIENTS ADMITTED BY YEARS

1920	1921	1922	1923	1924
126	165	186	177	228

Daily average cared for: Approximately 20

PURPOSE AND SERVICE

Provides a temporary, non-sectarian home for men, women and children discharged from hospitals and other sources as cured but in need of after care.

ADMISSIONS: Are through hospitals, social service agencies and private sources with medical diagnosis affording immediate entrance.

STAY IN HOME is indeterminate, governed by individual conditions through after care and examinations at clinics.

ACTIVITIES AND METHODS. Light occupation in the institution under careful supervision is used to test endurance and to aid self-confidence. Outside employment is secured through incoming applications, through initiative of patients seeking it, and the endorsement of the Home based upon proof of ability while residents.

RECREATIONS are given as curative agencies and educational promoters, and "rest hours" are part of the daily routine.

REDUCED TRANSPORTATION is secured, and material assistance in meeting it from co-operating with Relief Societies assists patients to return to their homes.

NEWS AND COMMENT

Lucien A. Ledoux, M. D., Department Editor

"Every man owes some of his time to the upbuilding of the profession to which he belongs."
—Theodore Roosevelt.

THIRD DISTRICT MEDICAL SOCIETY

The quarterly meeting of the Third District Medical Society held in Lafayette, Tuesday afternoon and night was largely attended by members of the society from various parts of the Third District, together with some visitors from other Districts. An interesting program was arranged in connection with the meeting.

About 40 physicians from the Third District were present, and visiting physicians attended from New Orleans, Alexandria, Opelousas, Crowley and Rayne.

The program opened with the showing of a motion picture on medical subjects, produced by Dr. Louis Gregory Cole, and which was presented at the Royal Theatre at a special showing arranged for the physicians attending the meeting.

At 7:00 o'clock Tuesday night, a program opened at the Elks' Home with Drs. Leon J. Menville, D. N. Silverman and Maurice J. Gelpi as speakers.

After the meeting at the Elks Home, a banquet for members of the society and visitors was given at John's Tavern where an enjoyable five course menu was served.

The next meeting of the Society is scheduled for sometime in July, at Patterson, in connection with the annual boatride outing taken by the society.

Officers of the society include Dr. C. M. Horton, of Franklin, President; Dr. P. A. Boykin, Secretary, of Jeannerette; and Dr. Harold G. F. Edwards, Secretary and Treasurer.

EIGHTH CONGRESSIONAL DISTRICT

LASALLE PARISH MEDICAL SOCIETY

The Physicians Improvement and Protective Association of LaSalle Parish turned its organization into the LaSalle Parish Medical Society and at its regular meeting the first week of March elected officers and forwarded all proceedings to the State Society. Dr. O. F. Matthews Urania, was made President, Dr. J. P. Durham, Trout, Vice President, Dr. W. V. Taylor, Olla, Secretary-Treasurer, and Delegate to the State Convention. Dr. J. A. Coleman, Jena was made alternate.

This adds a new parish to the many organized in the district. The society is functioning splendidly. Its meetings are quarterly with headquarters at Alexandria. Splendid programs are rendered.

Dr. Marvin Cappel as President of the Rapides Parish Medical Society holds the Rapides medicos in line having interesting monthly programs.

Avoylles with Drs. Chatelain, Quirk and Fox at the wheel are meeting regularly every other month. The next meeting is to be at Simmesport on April 15th. A medical meeting there will be quite a novelty to its citizens and to the medical fraternity of Avoyelles. Many medical men throughout the State will attend. The other organized parishes are developing marked interest and the most flattering status will be presented at the proper time covering every angle of the District.

The Eighth Congressional District was indeed honored during the month by the visit of the Sanitary Commission from Latin America under the leadership of Docteur Louis Destouches of the health department of the League of Nations. Their stop was at Alexandria and from all accounts their stay was more than pleasant and the health conditions and sanitation of the district very good.

MONTHLY BULLETIN OF THE SHREVEPORT MEDICAL SOCIETY

April meeting of the Shreveport Medical Society, April 7, at Charity Hospital at 8 p. m.
"Let us know each other better."

April Scientific Program

Reports from the American Congress of Internal Medicine held at Washington, March 9-15. Dr. F. G. Ellis, Dr. T. P. Lloyd, Dr. A. R. Herold, Dr. W. S. Kerlin

Charity Hospital, March 3, 1925. The Shreveport Medical Society was called to order for the regular monthly meeting at eight p. m., by President Sanderson. There were eighty-five members and four visitors present. Minutes of the last regular meeting were read and approved.

Secretary's report. An application for membership in the Society was received from Dr. Dorf Bean and referred to a committee composed of Drs. Pirkle, Crain and T. E. Williams.

A letter was read from the State Society calling attention to a proposed amendement to the constitution at the next convention.

A letter was read from Dr. J. Q. Adams, brother of the late Dr. W. M. Adams, thanking Dr. Sanderson and the members of the Society for their expressions of sympathy. A similar note was read from the widow and children of the late Dr. W. M. Adams.

Following the reading of a letter from Dr. A. L. Peters, Secretary of Ouachita Parish Medical Society, a motion was made, seconded and passed that we accept their offer of an exchange of programs and that the program and date be left to the program committee.

On being favorably reported upon by committees the following were elected to membership: Drs. Shirley H. Betts, D. R. McIntyre, G. W. Murphy.

Dr. E. C. Simonton read an interesting paper on Adenoids and Tonsils in Relation to General Health. Discussion by Drs. Boaz, L. W. Gorton and Picard. A motion was made, seconded and passed that presentation of clinical cases be postponed.

Dr. Douglas read two papers prepared by an unofficial group of members concerning the narcotic situation and answering the allegations made regarding the local situation, with the request

that the Society choose one as an official statement of the society. A motion was passed that the matter be opened for discussion. Discussion by Drs. J. D. Young, Herold. Dr. Herold made a motion which was seconded and lost that both letters be tabled.

Dr. Boaz made a motion that the substance of these two letters be combined into one, referred to a committee and that the committee report back to the society at a call meeting. Motion seconded. Discussion by Drs. Milton Smith, Hendricks, Penick, Scales, Barrow. Dr. Barrow made a substitute motion which after considerable discussion he withdrew.

Dr. Rougon made an amendment to Dr. Boaz's motion that the committee report back at a call meeting and that Dr. Dowling be invited to be present with his information and that the call meeting be especially for discussion of the narcotic situation. Motion was seconded. Discussion by Drs. Scales, and J. M. Gorton.

On the vote the amendment and original motion passed.

On the committee were appointed Drs. Douglas, Ragan and Herold. Drs. Ragan and Douglas requested that their names be withdrawn from the committee. Additional members appointed were J. E. Knighton and Milton Smith. On objection from the floor the committee remained as appointed.

A motion was made, seconded and passed that the special meeting be held March 18th at 8 p. m., at Charity Hospital.

Dr. Sanderson announced that the Society has a special invitation to be the guests of the Four Square Bible Class on Sunday, March 15th. A motion was made, seconded and passed that as many go as possible.

Dr. Cassity made a motion that it be considered unethical for any physician of Shreveport to prescribe narcotics for an incurable addict except after consultation with another reputable physician. Motion seconded. Dr. Adair made a substitute motion that the President appoint a committee to investigate illegal prescribing of narcotics and to report back to the Society.

Dr. Milton Smith made a motion that both previous motions be tabled. Motion seconded and passed.

On motion the Society adjourned.

R. T. Lucas, Secretary.

POINTE COUPEE PARISH MEDICAL SOCIETY

At the regular meeting of the Pointe Coupee Medical Society held Tuesday evening, February 3, in accord with the program, Dr. Carruth made a talk on "The Diagnosis and Treatment of Venereal Diseases in their Relation to the State Marriage Law." He called attention to the rapidly growing interest in such questions, to the now World-wide recognition of the need of such legislation, and cited the fact that even a pagan land like Turkey had at last awakened to the menace and recently placed upon her statute books a marriage law.

The talk was well received and a very interesting discussion followed in which the parish health officer, Dr. Cazayoux, Drs. F. F. Rougon of Oscar, and Devron of Lakeland, were among those making specially pertinent and forceful remarks. Dr. Devron's remarks were especially interesting, as he confined himself to the discussion of the most up-to-date methods of testing for these diseases by which the possibility of error is largely eliminated.

It was near midnight when the meeting adjourned for the special feature of the program —an oyster supper tendered the members of the society by the President Dr. Cazayoux.

BOSSIER PARISH MEDICAL SOCIETY

At a recent re-organization meeting of the Bossier Parish Medical Society, Dr. Hall of Rocky Mount was elected President; Dr. Carter of Bossier City, vice president; Dr. C. M. Tucker, Haughton, secretary-treasurer. Dr. Hall was chosen delegate and Dr. Carter alternate, to the State Medical Society Convention. District Councillor Herold was present and read a paper. Resolutions of regret and of good wishes to former President D. J. McAnn, who is ill, were unanimously adopted.

RED RIVER PARISH MEDICAL SOCIETY

Red River Parish Medical Society met in Coushatta on March 4th, with President Edgerton in the chair. Routine business was transacted. District Councillor Herold was present and read a paper. Officers and delegates previously elected.

WASHINGTON PARISH MEDICAL SOCIETY

The Washington Parish Medical Society held its regular monthly meeting, March 26th, 1925. The membership assembled in the dining room of the Pine Tree Inn, Bogalusa, La., at 8:00 p. m., where a luncheon was served. After luncheon the house was called to order by the President and the regular business of the society taken up. The scientific program consisted of papers and clinical reports. For this meeting Dr. H. W. E. Walther of New Orleans, was the invited guest, and read a paper entitled, "Some Phases of Modern Urological Practice"; this address was illustrated with steriоptican views. Dr. R. R. Ward opened the discussion for the society.

F. Michael Smith, Secretary-Treasurer.

DECEASED

Dr. B. B. Warren died suddenly at his home in Covington, La., Tuesday, March 31, 1925, at the age of 65 years. Dr. Warren was a graduate of Tulane, Class of 1882, and a member of the St. Tammany Parish Medical Society.

Louisiana was represented at the recent Annual Clinical Session of the American Congress on Internal Medicine by Drs. T. P. Lloyd, F. G. Ellis, W. S. Kerlin and A. A. Herold, all of Shreveport. The meeting was at Washington, March 9-14th. The 1926 session will be held in Detroit and Ann Arbor, Mich.

DR. PARHAM HONORED

On March 20, 1925, the staff of the Charity Hospital presented to the Board of Administrators, a life size portrait of Dr. F. W. Parham in recognition of his work in that institution. Through his efforts puerperal infection was

stamped out in 1887 and in 1890 aseptic surgery was for the first time put on a firm basis. For more than forty years Dr. Parham has devoted his time and energies to the welfare of the Hospital and no one individual has done more for the advancement of surgery within its walls.

NEW ORLEANS OPHTHALMOLOGICAL AND OTO-LARYNGOLOGICAL SOCIETY

The New Orleans Ophthalmological and Oto-Larnyngological Society met at the Domicile of the Orleans Parish Medical Society on March 19th, 1925. 45 members attended.

At this meeting the Eye, Ear, Nose and Throat Hospital was decided upon as the domicile of the Society for the coming year. Meetings are held every third Thursday of the month, starting at eight o'clock and adjourning at ten.

Those interested in these specialties in New Orleans and adjoining territory are elegible for membership.

Dr. T. J. Dimitry was elected President and Dr. Val H. Fuchs, Secretary-Treasurer for the coming year.

Georgia is carrying on a campaign to register and teach her midwives in order to make conditions safer for mothers and babies in that state. Dr. Joe P. Bowdoin, Director of the State Division of Child Hygiene, reports that one-third of the babies born in Georgia nearly 23,000 are not attended by a physician. Over 4,000 midwives have already been registered.

There will be a meeting of the American Proctologic Society in the Ambassador Hotel, Atlantic City, N. J., May 25-26, 1925.

AMERICAN BOARD OF OTOLARYNGOLOGY

The next examination conducted by the American Board of Otolaryngology will be held at the Ambassador Hotel, Atlantic City, on Tuesday, May 26th, at 9 a. m.

Application blanks may be obtained from Dr. H. W. Loeb, Secretary, 1402 S. Grand Boulevard, St. Louis, Mo.

AMERICAN SOCIETY FOR THE CONTROL OF CANCER

Dr. Howard Canning Taylor, of No. 20 West 53rd St., Professor of Clinical Gynecology at the College of Physicians and Surgeons and President of the American Gynecological Society, was elected President of the American Society for the Control of Cancer at the annual meeting of the Society held in its rooms, No. 370 Seventh Avenue, March 7, 1925. Dr. Taylor, who has been the Society's Vice President and Chairman of its Executive Committee, succeeds Dr. Charles A. Powers, deceased. Thomas M. Debevoise was re-elected Secretary and Calvert Brewer was again elected Treasurer. Dr. Francis Carter Wood was elected Vice President.

In the annual report of Dr. George A. Soper, Managing Director, evidence was presented to show that the efforts of the Society to acquaint the public with the early symptoms of cancer in order that those who were affected may receive speedy treatment had borne fruit throughout the country.

MEDICAL FACULTY OF STRASSBURG

Secretary General Dr. E. Vaucher of the Medical Faculty of Strassburg, makes the following announcement:

Post Graduate Courses will be given under the auspices of the Medical Faculty of Strassburg, and the entire Tuberculosis Association of Alsace-Lorraine at Strassburg beginning October 9th and ending October 23rd, 1925. A program of courses offered is enclosed in the communication and further information may be secured in the Journal office.

WESTERN PHYSIOTHERAPY ASSOCIATION

The seventh annual meeting of this Association will be held at the Little Theatre, Kansas City, Mo., Thursday and Friday, April 16 and 17, under the presidency of Dr. L. A. Marty of Kansas City.

The exhibit space in the Little Theatre has been considerably augmented this year and those who attend this meeting will be well repaid for a visit to the exhibit hall. All the up-to-date equipment will be shown by 20 manufacturers.

All physicians and surgeons who are interested in the progress of Physiotherapy are cordially invited to attend this meeting. Full information and programs may be obtained by addressing the Secretary, Charles Wood Fassett, M. D., 115 East 31st St., Kansas City, Mo.

A course of Post-Graduate Instruction in Urology is to be given at All Saints' Hospital, Vauxhall Bridge Road, S. W., during the month of August, 1925. In addition to the above there will be Clinical Demonstrations throughout the month. The fee for the course is five guineas. Cheques should be made payable to the Fellowship of Medicine, and the names of those wishing to attend should be sent to the Secretary to the Fellowship at No. 1, Wimpole St., London, W. 1, July 29.

A Post-Graduate Course in Chest Diseases is to be given at the City of London Hospital for Diseases of the Heart and Lungs, Victoria Park, E. 2, June 8 to June 20, 1925.

Operations if any will be performed by Mr. W. H. C. Romanis on June 16 at 10 a. m. Further notice will be given during the course.

The fee for the course is two guineas, and the names of those wishing to attend should be sent to the Secretary of the Fellowship of Medicine, at No. 1, Wimpole St., W. 1, by June 1.

OPPORTUNITIES FOR GRADUATE MEDICAL STUDY IN NEW YORK

The Committee on Medical Education of the New York Academy of Medicine has prepared a series of synopses of approved opportunities for graduate medical study in New York City which will soon be published for distribution. The synopses cover dermatology and syphilology, obstetrics and gynecology, internal medicine, neurology and psychiatry, opthalmology, oto-laryngology,

pediatrics, surgery, urology and orthopedic surgery.

A Bureau of Clinical Information is maintained at the Academy of Medicine, 17 West 43rd St., where information is available regarding opportunities for graduate medical study in New York, and also in other cities of the United States and abroad. The Executive Secretary in charge of the bureau is prepared to answer inquiries concerning ordinary internships, special internships or residencies, graduate courses in medical schools and teaching hospitals, and extension courses. Much information in regard to graduate medical work in England and on the Continent is on file.

The Bureau publishes a Daily Bulletin of Surgical Clinics which will go mailed free to visiting doctors on request. A Weekly Bulletin of Medical Clinics also is published. A book of the fixed clinics of Greater New York, with a transportation guide, has been prepared for the use of visitors whose stay in the City is limited, and is furnished without charge.

The lack of continuous contact between scientists, scientific institutions and cultural organizations of the United States and the Union of Soviet Republics has been felt for many years in both countries.

Since the war there has been practically no mutual exchange of scientific publications—with the result the institutions and organizations concerned were unable to form any comprehensive idea of the mutual activities and achievements.

A similar situation prevailed not so very long ago in the cultural relations between the Soviet Union and most European countries.

Due to this unsatisfactory condition a special organization was brought to life—the Joint Information Bureau which has been created in Moscow with the aim of assisting in the establishment of closer connections between the Union of Soviet Republics and other countries.

BOOK REVIEWS

Clinical Aspects of the Electro-Cardiogram.
Harold E. B. Pardu, M. D., Associate in Medicine, Cornell University, 222 pages, N. Y., Paul B. Hoeber, 1924.

The author has presented a readable text in a highly technical field. The exposition is clear, accurate, and authoritative, as might be expected from an experienced worker and investigator. He has tried to collect all the current knowledge of the electrocardiogram which is of clinical importance. All details of experimental and theoretical considerations, as well as all controversial points have been touched upon as simply as possible. Every student (i. e., every practitioner) of internal medicine must seek some orientation in the newer ideas of cardiac disease even if he has not the opportunity of employing electrocardiography nor the need of interpreting electrocardiograms. To the one seeking such orientation, as well as to the clinical electrocardiographer the present volume may be commended.

I. I. Lemann.

Goitre: Nonsurgical Types and Treatment.
Israel Bram, Instructor in Clinical Medicine, Jefferson Med. College, 479 pages, N. Y. The Macmillan Co., 1924.

This book is written in vigorous, almost polemical style. Its thesis is that all goitres of the following types should be considered nonsurgical and treated medically only: 1, Parenchymatous hypertrophy; 2, Colloid goitre; 3, Puberty hyperplasis; 4, Hyperplasis of exophthalamic goitre (Grave's disease). The author would restrict the employment of surgical measures to "adenomatous, cystic and all other thyroid enlargements not classified under nonsurgical goitre." The chief field of controversy, is of course, that of Grave's disease. The author's attitude and spirit is exemplified by the following quotations: "Surgical treatment of nonsurgical goitre is a fallacious procedure, yielding, at best, a low operative mortality rate and a neat scar. The percentage of clinical recovery is relatively negligible." The rationale of thyroidectomy should not be based upon the fact that only two or three in a hundred die of the operation. It is not justified, even if many patients surviving operation are improved, if this amelioration of symptons is incomplete and temporary.

Moreover, the mortality rate, where a broadcast average is taken, is still genuinely high. Again he demands to know, by what standard are we to judge slight improvements, marked improvements and clinical recovery? "Surgical attacks of the hyperplastic thyroid is physiologically, pathologically and clinically inconsistent." "The piece of hyperplastic thyroid tissue left in situ still hyperfunctionates—still heeds the call of the uninfluenced, activating etiological factors which require the assistance of an entire thyroid gland for compensation, and soon again the organ endeavors to become entire again through regenerating proliferation."

The larger part of the volume is devoted to a careful and accurate discussion of the phenomena of Grave's disease and a detailed painstaking plan for its medical treatment. Additional interest in this aspect of the problem is derived from the revival during the past eighteen months, under the leadership of Plummer, of iodine therapy (at least as an adjuvant). Bram has little to say of this and his attitude is very conservative, though favorable. He strongly advocates quinine hydrobromate. Exophthalmic goitre patients, he finds are insusceptible to cinchonism and he has proposed a differential diagnostic test upon this basis.

This book may be commended as a trustworthy guide to the medical treatment of goitre, if that is decided upon. To everyone with an open mind its perusal will prove stimulating.

I. I. Lemann.

Diseases of The Eye, A Manual, for students and general practitioners. By Chas H. May, M. D., 11th Ed. N. Y. Wm. Wood and Co., 124.

This eleventh edition of a popular manual on the eye is received with the usual good wishes, for it continues as its name implies "a manual" for students and general practitioners.

The subject matter is concise, not mutilated as is so common in manuals, but is sufficiently explicit to convey the necessary information that would be desired by student or general practitioner.

The section on refraction can not be improved upon, and the colored plates of diseases makes

for ease in grasping what would otherwise be very difficult.

Can you wonder with the above qualifications why one hundred and fifty thousand copies have been published? The volume has been kept up to date, yet it has not been increased in size.

T. J. Dimitry.

Relative Position of Rest of the Eyes. Prolonged Occlusion Test. By F. W. Marlow, M. D., M. R. C. S., F. A. C. S. Philadelphia, F. A. Davis Co., 1924.

An excellently presented monograph, treating on an interesting fundamental problem, explaining a way many difficulties which are met with in a study of muscle imbalance

The book reveals a truth, making possible a better knowledge for diagnosis and treatment, for he has defined the "relative position of rest," for the extrinsic ocular muscles.

The case reports are well worked out and the tables carry conviction.

T. J. Dimitry.

Annual reprint of the Reports of the Council on Pharmacy and Chemistry of the American Medical Association for 1924. Cloth. Price, postpaid, $1.00. pp., 82. Chicago: American Medical Association, 1925.

This volume contains the reports of the Council on Pharmacy and Chemistry that have been adopted and authorized for publication during 1924. Some of these reports have appeared in The Journal of the American Medical Association. Others are now published for the first time.

The annual volumes of the "Council Reports" may be looked on as the companion volumes to New and Nonofficial Remedies. While the latter contains the medicinal preparations that are found acceptable, the reports contain the reason why certain products were not accepted. Thus the present volume contains reports on the following products which the Council denied admission to New and Nonofficial Remedies: Aolan; Aspatol; Atussin, Peptoprpteasi, Paraganglina, Vassale, Fosfoplasmina, Arnoganglina, and Endo-Ovarina Tablets; Borosodine; Carsinal; Colodine and Colobromidine; Ferrasin; Glyeuthymenol; Hoyt's Gluten Flakes; Iodeol; Loeflund's Food Maltose; Mistura Creosote Comp. (Killgore's) and Tablets Cascara Comp. (Killgore's); Neo-Riodine; Nicomors; Peptone Solution for Hypodermatic Use (Armour); Pixalbol; "P-0-4"; Pollantin; Promonta; Pruritus Vaccine Treatment-Lederle (Montague Method); Restor-Vin; Some "Mixed" Vaccines of G. H. Sherman and Tersul Hiller.

The volume also contains reports of products which were included in former editions of New and Nonofficial Remedies but which will not appear in 1925 edition because they were found ineligible for further recognition. Among these are polyvalent antipneumococcic serum, colon bacillus vaccine, gonococcus serum and gonococcus vaccine.

The volume contains a number of reports of a general nature, for instance: a report on the therapeutic value of benzyl benzoate; a report on anaphylaxis produced by thromboplastic substances and a report on the therapeutic use of digitalis.

Physicians who keep fully informed in regard to the value of proprietary remedies will wish to own this book.

Medical Gynecology—Samuel Wyllis Bandler—W. B. Saunders Co., 1924.

Bandler's Medical Gynecology is designed especially for the general practitioner but is none the less a book which offers valuable suggestions to the specialist in this particular field. There is a sharp distinction between operative and non-operative conditions and the author points out very definitely the limits of non-operative procedures. The fourth edition has been revised and brought up to date, especially in such matters as X-ray diagnosis, radium therapy and endocrinology. The chapter on endocrines particularly covers many pages and discusses very thoroughly the indications, dosage and possible beneficial results of treatment by endocrine therapy but the author's enthusiasm in this matter, except in a very few instances, appears considerably more zealous than experimental and chemical facts have borne out.

The treatise on pain is excellent, dealing as it does with the discomfort incidental to lesions involving separate pelvic organs as well as the diagnosis and treatment. The question of sterility is also well handled. The classification of the various types is good and the methods for detecting the underlying causes of the condition are simple, up to date and refined.

The chapter on constipation furnishes the clearest, most rational ideas I have yet seen in print on this subject and every physician could profitably read this chapter more than once to refresh himself as to the causes, treatment and pernicious effects of this very common malady.

The chapters on other subjects are equally clearly outlined and well presented in every respect, except that the gross and microscopic pathology is given too little attention. The outline for the systematic examination of gynecological patients as set forth in the first chapter could be followed in detail in office practice with very valuable results. The illustrations, while schematic, are good and serve the author's purpose excellently.

Hilliard E. Miller.

PUBLICATIONS RECEIVED

W. B. Saunders Co., Philadelphia and London: "Pediatrics," Ed. by Isaac A. Abt., Vol. 6.

Paul B. Hoeber, Inc., New York: "Teeth and Jaws," by Hermann A. Osgood.

J. B. Lippincott Co., Philadelphia and London: "International Clinics," Thirty-Fifth Series, Vol. 1, 1925.

C. V. Mosby Co., St. Louis: "The Dentist's Own Book," by C. Edmund Kells, D. D. S.

Year Book Publishers, Chicago: "Practical medicine series," Vol. 5, Gynecology and Obstetrics, Ed. by Thomas J. Watkins and Joseph B. De Lee.

P. Blakiston's Son & Co., Philadelphia: "Pathology and Bacteriology of the Eye," by E. Treacher Collins and M. Stephen Mayou. 2d Ed.; "Textbook of Human Physiology," by Albert P. Brubaker, 8th Ed.

REPRINTS

"A Diet for Peptic Ulcer," by A. Altshuler, Detroit.